

COMPUTERS

a n d

AUTOMATION

DATA PROCESSING • CYBERNETICS • ROBOTS

5th Annual Issue

THE COMPUTER DIRECTORY AND BUYERS' GUIDE, 1959

the June, 1959 issue of
"Computers and Automation"

Part 1: Roster of Organizations in the Computer Field
(cumulative)

Part 2: Buyers' Guide for the Computer Field: Products
and Services for Sale or Rent
(cumulative)

CROSLEY DIV.
AVCO CORP.

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VOL. 8 - NO. 6

Autonetics
Professional Personnel Dept.
9150 E. Imperial
Downey, Calif.

July 15, 1956

Dear Mr. Benning:

I am interested in a responsible position which will more fully utilize my experience and education. I graduated with a Masters Degree in Electrical Engineering in 1952 and for the past four years I have been doing research and development on both analog and digital computers. Though my present job is satisfactory I wish to

This letter moved an engineer ahead 5 years

Two years ago a man took 10 minutes to write this letter. Today he enjoys the responsibility and professional standing in the Autonetics Division of North American that might have taken 5 years to achieve elsewhere.

COMPUTERS AT AUTONETICS—A FIELD OF OPPORTUNITY

At Autonetics we have concentrated on developing original techniques in transistor circuitry, miniaturization, and quantity manufacture of precision components. For only with these new arts is it possible to create computers so small, rugged, reliable—yet so big in performance—that they can meet the demands of the space age or the increasingly complex problems of industry.

Our engineers have designed and built both analog and digital computers—for inertial navigation, bombing-navigation, armament control, flight control and data processing equipment. Out of this experience, Autonetics built the first transistorized digital computer of true general purpose capacity.

Today at Autonetics there's a respected combination of scientists, engineers, and production men constantly forging ahead into vital new technologies. Every state of the art is represented, from preliminary conception right through manufacturing. Facilities are the finest—and it's just a short jaunt to mountains, beaches or desert.

You owe it to yourself to consider how far you can advance by entering this exceptionally promising field right now. Here are the opportunities:

LOGICAL DESIGN • SMALL COMPUTER PROGRAMMING • SYSTEMS DESIGN, DEVELOPMENT AND TEST • TRANSISTOR CIRCUITRY • MAGNETIC MEMORY • SYSTEMS INTEGRATION • FIELD SERVICE ENGINEERING.

Write your letter today. Please include a resume of your qualifications. Decide now to investigate your opportunities at Autonetics. Reply will be prompt, factual, confidential.

Write P. R. Benning, Manager, Employment Services.
9150 E. Imperial Highway, Downey, California

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COMPUTERS and AUTOMATION

DATA PROCESSING • CYBERNETICS • ROBO

Volume 8
Number 6

JUNE, 1959

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September

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The Computer Directory and Buyers' Guide, 1959

Part 1: Roster of Organizations in
Computer Field (cumulative).

Part 2: Buyers' Guide for the Computer
Field: Products and Services for Sale
or Rent (cumulative).

Who's Who in the Computer Field (supplement).



The fifth annual edition of "The Computer Directory and Buyers' Guide," the June issue of *Computers and Automation*, is here presented, 100 pages long, with the hope that it will prove essential to the work of people in the computer field.

"Part 1, Roster of Organizations in the Computer Field," contains about 740 entries.

"Part 2, Buyers' Guide for the Computer Field: Products and Services for Sale or Rent," contains about 278 entries.

The "Roster of Organizations," is the reason for our existence as a magazine, since our first issue, Vol. 1, No. 1, in September, 1951, consisted only of a seven page purple ditto list of organizations in the computer field.

As usual, we ask our readers please to tell us of additions, corrections, and revisions, so that we may continue to try to make the reference information that we publish useful and reliable.

COMPUTERS and AUTOMATION for June,

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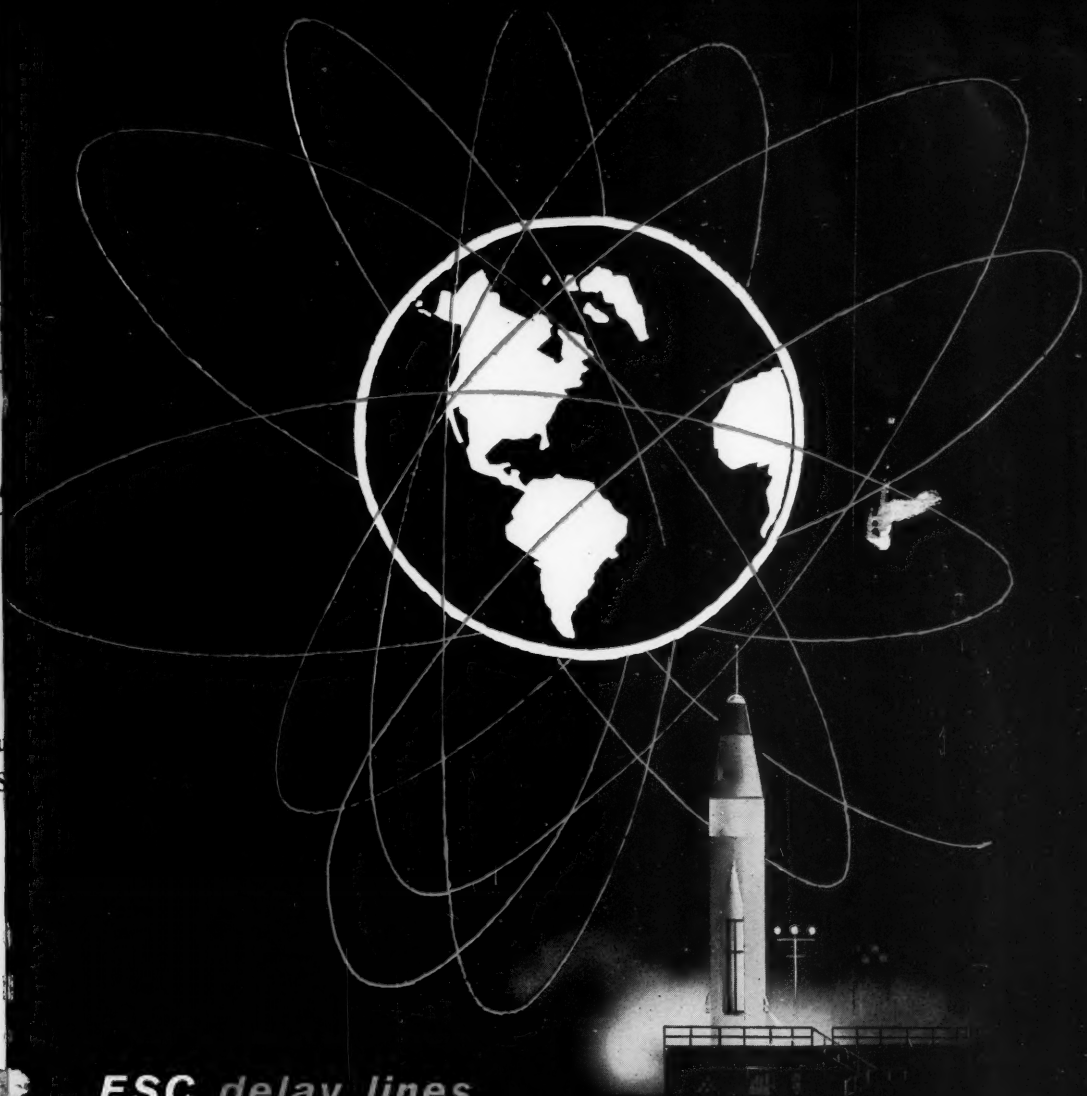
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ESC delay lines take off with America's talking satellite

On December 18, 1958, the world entered a new era of communications with the successful orbiting of an Atlas ICBM—the Talking Satellite that broadcast President Dwight D. Eisenhower's Christmas message to the world. Circling the earth at a speed of more than 17,000 mph, the Talking Satellite repeated the President's message, erased it, and received and rebroadcast new messages in both voice and code.

ESC Corporation is justifiably proud that its delay lines were selected to aid in this electrifying triumph for America and her electronics industry. Especially designed by ESC, these delay lines were used in the timing sequence for propulsion, the guidance system and the telemetering system.

As America's largest manufacturer of custom-built and stock delay lines, ESC has continually met the responsibility of leadership by providing virtually every type of delay line needed by defense and industry. If you have a delay line problem, let ESC's design staff suggest a custom-built answer.



WRITE TODAY FOR COMPLETE TECHNICAL DATA.

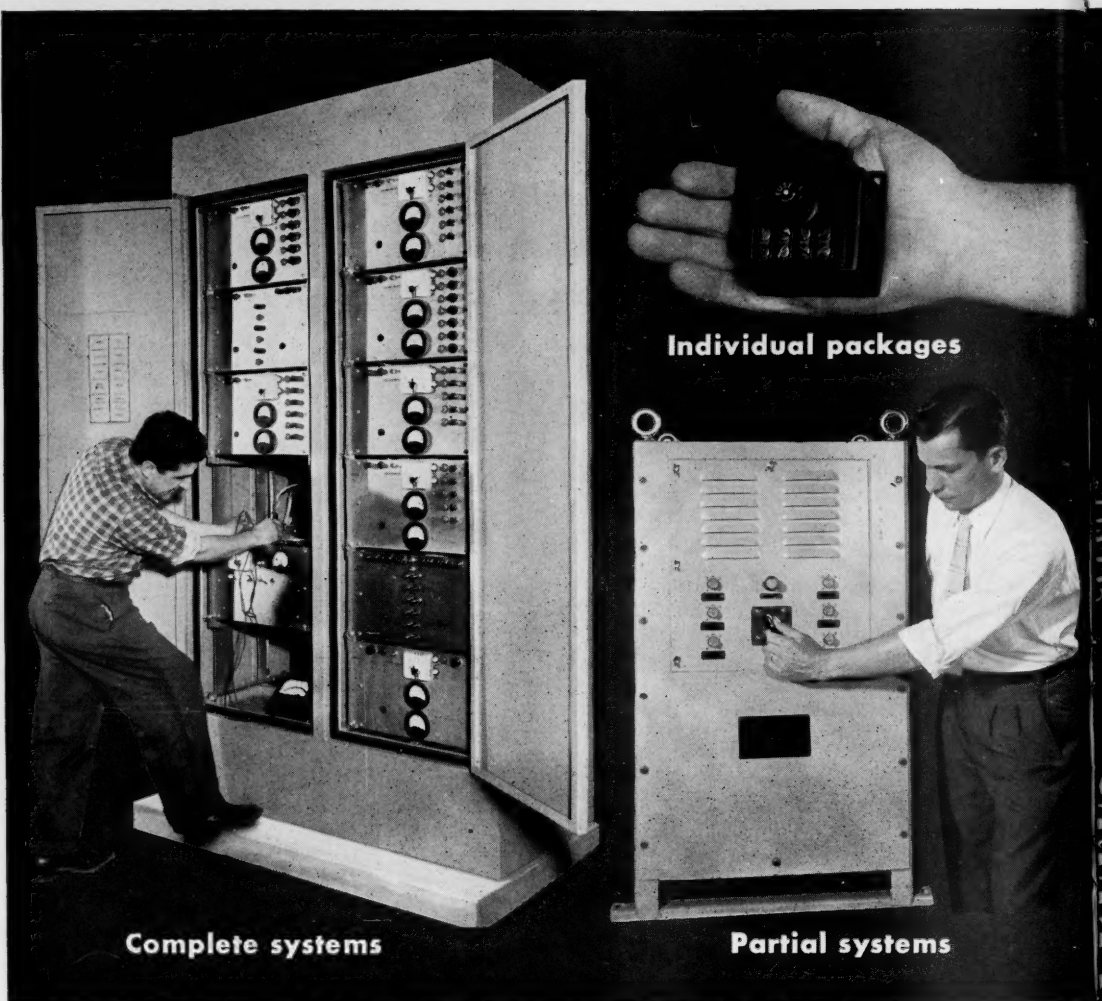
exceptional employment opportunities for engineers experienced in computer components... excellent profit-sharing plan.

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CORPORATION

534 BERGEN BOULEVARD, PALISADES PARK, NEW JERSEY

distributed constant delay lines • Lumped constant delay lines • Variable delay networks • Continuously variable delay lines • Pushbutton decade delay lines • Shift registers • Pulse transformers • Medium and low power transformers • Filters of all types • Pulse forming networks • Miniature plug-in encapsulated delay lines • Relays



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General Electric can meet your power-supply requirements—your requirements from individual packages to complete systems. These can be supplied from (1) completely engineered equipment in stock, (2) by custom packaging of components, or (3) with completely new designs. Whatever your prob-

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5,000,000 data bits or more are recorded on a reel of tape used in digital recording! Your data processing operations depend on the flawless recording of *every single bit*. This kind of performance calls for a high degree of specialization in the tape itself, a tape designed specifically for this use...

SOUNDCRAFT TYPE A TAPE FOR DIGITAL RECORDING — Only SOUNDCRAFT with the world's newest, most modern tape manufacturing facilities, has engineered all the critical properties required for digital recording into a single tape. The result: on transport after transport SOUNDCRAFT Type A Tape out-performs and outwears all competitors by as much as 7 to 1. Why risk costly errors? Use error-free SOUNDCRAFT Type A Tape for Digital Recording. Write for SOUNDCRAFT Type A Tape Brochure.

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exclusive zip-tip
envelope for permanent
dust-free storage.

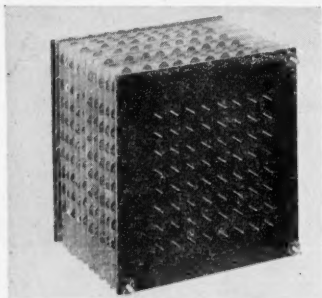
Dept. CA-5, Great Pasture Rd., Danbury, Conn. • 342 N. LaBrea, Los Angeles, Calif. • Canada: 700 Weston Rd., Toronto 9, Ont.

THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959



NCR 304 All Solid-State Circuitry

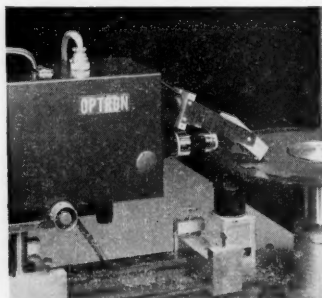
Concentrated research and development at the Electronics Division has led to the marketing of the 304, the first wholly business-designed large-scale computer system featuring all solid-state circuitry. All equipment in the 304 was specifically designed as part of a complete system for processing business data; there was no "building around" existing units. Salient features include a "business command structure," which enables the programmer to write instructions in a simplified language; automatic checking throughout the entire system to assure accurate transmissions; full transistorization; plug-in printed card circuitry; universal converter which permits all input-output functions to be time-shared with the processor; and high-speed magnetic core memory.



ROD MEMORY

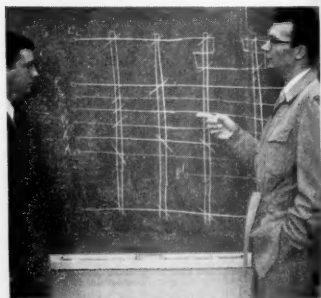
significant advance in digital computer technology

Future electronic computers will be able to "think" 10 to 20 times faster than present models, thanks to NCR's development of the Rod, a magnetic memory element with a 4-millisecond switching speed. Essentially a glass rod with a magnetic coating, the new component is both a switching and information-storage unit. Each Rod is about the size of a straight pin, and thousands of Rods can be linked together electrically in a small space to solve problems with extreme speed. Because it operates reliably over a very wide range of temperature, the Rod will also enable missiles and space vehicles to navigate more dependably.



PHOTOCHROMIC MEMORY

based on microencapsulation technique
NCR Electronics researchers are conducting theoretical and experimental investigation of photochromic memories. In this technique, a light-sensitive liquid dye is stored in a gelatin capsule only $2\frac{1}{2}$ microns in diameter. It can store and release information immediately in response to a beam of light. These studies may lead to future application in an ultra-high-density memory.



INHIBIT-CORE LOGIC

little to wear out means greater reliability
Logic circuitry built from NCR's ferrite memory cores or magnetic Rods with very few "active" elements (tubes, semiconductor diodes, and transistors) greatly increases the reliability of computing systems. This is because there are few elements to wear out. Desired logical results are achieved by preventing, or *inhibiting*, the unwanted results by means of currents which prevent cores from switching except under certain combinations of events. This principle reduces power requirements.

NATIONAL'S CONTINUAL RESEARCH BRINGS NOTABLE 'FIRSTS'

Behind the scenes at The National Cash Register Co. Electronics Division, dedicated scientists and engineers have witnessed the success of their "firsts" in the computer field. These notable achievements include the fully transistorized 304 Electronic Data Processing System, magnetic Rod, photochromic memory, and inhibit-core logic. There is not time to sit back in satisfaction, however. Explorations in both military and commercial computers are now being carried out, which promise to advance the art significantly. Qualified personnel who can contribute to these interesting programs will find a satisfying future at NCR.

*National**

The National Cash Register Company
Electronics Division
1401 East El Segundo Boulevard
Hawthorne, California

*TRADEMARK REG. U.S. PAT. OFF.



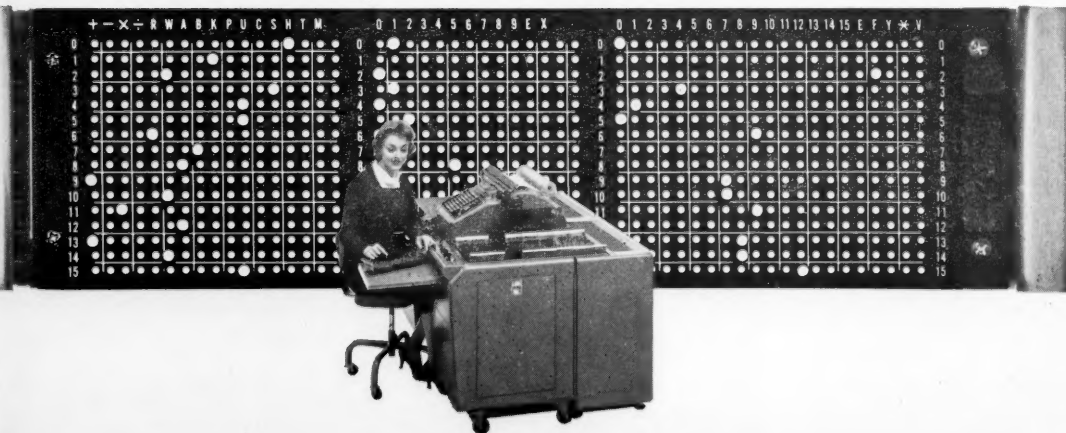
pinboard programming: easy as putting a round peg in a round hole



Simplified pinboard programming of the Burroughs E101 electronic digital computer multiplies technical talent. Scientific personnel report time savings of 20 to 1 over manual calculators. Ease of operation makes practical the "open shop" computer approach, with extensive savings of high-priced man hours in scores of installations. Optional input-output units for punched paper tape and punched cards further extend data-handling / problem-solving capacity. From small computers to giant data processing systems, Burroughs equipment means new efficiency...and profits...for you. Write for E101 Brochure today. ElectroData Division, Pasadena, California.

Burroughs Corporation

"NEW DIMENSIONS" in electronics and data processing systems





**Here is the low-cost
electronic digital computer
in greatest demand**

Gives you large-capacity electronic computation at desk-side

Operating from any convenient wall outlet, the powerful LGP-30 gives you the full flexibility of stored-program operation with an unusually large non-volatile memory of 4096 words — 2000 more than the next computer in its class! And it's the lowest-priced complete computer your company can buy!

Because the LGP-30 command structure and controls have been remarkably simplified, you require only minimum computer experience. What's more, you get complete format control . . . alphanumeric input-output via keyboard or punched paper tape. No additional equipment is required for operation although, if desired, a high-speed photoelectric reader — with or without mechanical punch — is available for system expansion.

The greatest computer value in today's market, the LGP-30 requires no expensive installation or air-conditioning . . . may be purchased on either a sale or rental basis. Customer training is free. An extensive library of programs and sub-routines is available — as well as membership in an active users organization. Sales and service facilities are maintained coast-to-coast. For further information and specifications, write Royal McBee Corporation; Data Processing Division, Port Chester, N. Y. In Canada: The McBee Company, Ltd., 179 Bartley Drive, Toronto 16.

ROYAL M^cBEE • data processing division

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Part I of
THE COMPUTER DIRECTORY AND BUYERS' GUIDE, 1959
the June, 1959, issue of "Computers and Automation"

ROSTER OF ORGANIZATIONS IN THE COMPUTER FIELD

(Cumulative, information as of May 1, 1959)

The purpose of this Roster is to report organizations (all that are known to us) in the computer field: organizations making or developing computing machinery or data-processing machinery; organizations supplying computing services or consulting services in the computer field; and organizations supplying components or services used in the computer field if related to the field (for example, magnetic drums would be such a component).

Entries. Each Roster entry if complete contains: name of the organization, its address / telephone number / description of its main activities, main products in the field, any comments / types of activities it engages in, size (expressed in number of employees), year established, nature of its interest in the computer field / names and titles of two officers. In cases where we do not have complete information, we put down what we have. Entries in this Roster are free. If the entry for the organization is to be printed in bold face type, there is a small nominal charge.

Accuracy. We have tried to make each entry accurate to the extent of information in our possession. We shall be grateful for any more information or additions or corrections that anyone is kind enough to send us. Although we have tried to be accurate and complete, we assume no liability for any statements expressed or implied.

Abbreviations

The key to the abbreviations follows:

Activities

- Ma Manufacturing activity
- Sa Selling activity
- Ra Research and development
- Ca Consulting
- Ga Government activity
- Pa Problem-solving
- Ba Buying activity
- (Used also in combinations as in RMSa "research, manufacturing and selling activity")

Size

- Ls Large size, over 500 employees
- Ms Medium size, 50 to 500 employees
- Ss Small size, under 50 employees (no. in parentheses is approx. no. of employees)

When Established

- Le Long established organization (1925 or earlier)

Me Organization established a "medium" time ago (1926 to 1945)

Se Organization established a short time ago (1946 or later) (no. in parentheses is year of establishment)

Interest in Computers and Automation

- Dc Digital computing machinery
- Ac Analog computing machinery
- Ic Incidental interests in computing machinery
- Sc Servomechanisms
- Cc Automatic control machinery
- Mc Automatic materials handling machinery

*C This organization has kindly furnished us with information expressly for the purposes of the Roster and therefore our report is likely to be more complete and accurate than otherwise might be the case. (C for Checking) / 59: information furnished in 1959 / 58: information furnished in 1958 / etc.

Organization Entry Form

The form to be completed for an entry in the Roster of Organizations follows:

1. Your organization's correct name?
2. Street address?
3. City, Zone, State?
4. Telephone Number?
5. Brief Description of your Product Lines and Services
6. Types of Activity that you engage in:
 - () Research
 - () Manufacturing
 - () Selling
 - () Consulting
 - () Other (please explain)
7. Approximate number of your employees?
8. Year when your organization was established?
9. Listings for two of your executives:
 - Name Title
 - Name Title
- Filled in by Title Date

ROSTER

A

- Accurate Electronics Corp., 169 S. Abbe Rd., Dept. C., Elyria, Ohio / EMerson 6-7925, ENdicott 5-1211 / *C 59
Plug and strip type plotting boards, connectors, jacks, jack panels, and terminals / RMSa Ss(35) Se (1952) Ic
- Ace Electronics Associates, Inc., 99 Dover St., Somerville 44, Mass. / SOMerset 6-5130 / *C 58
Potentiometers, linear, non-linear, precision, sub-miniature, micro-miniature. Hermetically sealed, sub-miniature relays / RMSa Ms(150) Se(1933) Ic
- Ace Relay Associates, Inc. — same as Ace Electronics Associates, Inc., which see.
- Acheson Colloids Co., a div. of Acheson Industries, Inc., 1640 Washington, Port Huron, Mich. / YUkon 4-4171 / *C 59
Dispersions of colloidal graphite, molybdenum disulfide, and other solids used for surface and conductive coatings / RMSCa Ms(100) Le(1908) Ic
- Acroscope Engineering Co., 1001 E. Manchester Ave., Los Angeles 1, Calif. / LUDlow 3-2241 / *C 58
Small precision plastic parts for the electronic and computer industry. Precision lapping and honing. Coil winding bobbins / RMSa Ss(15) Se(1948) Ic
- Actuarial Computing Service, Inc., 684 W. Peachtree St., N.W., Atlanta 8, Ga. / — / *C 57
Computing service / RCPa Ss Se Dc
- Adalia Computations, Ltd., 1410 Stanley St., Montreal 2, Que., Canada — moved, address not known
- ADB Institutet (Scandinavian Automatic Data Processing Institute), School of Technology, Gothenburg University, Gibraltargatan 5 P, Gothenburg, Sweden / 205209, 205248, 205258 / *C 59
University training in automatic data processing. Consulting, programming, coding and running problems on Alwac III-E computer for industries in Scandinavia / RCPa Ss(15) Se(1957) Dc
- Addo-x, Inc., 300 Park Ave., New York 22, N.Y. / PLaza 5-5420 / *C 59
Solenoid operated adding, accounting, and calculating machines; punched tape equipment / RMSa Ls (Sweden, 2500; USA, 40) Me(1941) Ic
- Addressograph-Multigraph Corp., 1200 Babbitt Rd., Cleveland 17, Ohio / Redwood 1-8000 / *C 59
Electronic facsimile printers, magnetic tape electronic printers, transfer printers, card-to-magnetic tape converter, output data converter, addressograph sensing plates, etc. / RMSa Ls(8000) Le(1903) Ic
- Advanced Electronics, Inc., 94 Silas Deane Hwy., Rocky Hill 9, Conn. / JACkson 7-6881 / *C 58
Fabrication and assembly of electronic and electro-mechanical equipment. Bobbin coil winding. Vibration detection equipment; automatic and signaling controls; cable assemblies; computer type coils; embedded assemblies and components / RMSa Ss (20) Se(1953) Ic
- AEC Computing and Applied Mathematics Center, Institute of Mathematical Sciences, 4 Washington Place, New York 3, N.Y. / OREGon 7-0200 / *C 59
Research and computing service for the Atomic Energy Commission. Univac I and IBM 704 with peripheral equipment / RCPGa Ms(100) Se(1950) Dc
- Aemco Inc., 10 State St., Mankato, Minn. / 5153 *C 58
Relays / RMSa Ms(350) Le(1918) Ic
- Aero Electronics Co., 1512 N. Wells St., Chicago Ill. / WHitehall 3-0401 / *C 58
Computing indicators and test equipment, synch and servo type instruments and equipment, analog computers, plotting boards, and simulators, consulting services / RMSCa Ss(15) Se(1948) AIC
- Aerona Mfg. Corp., Baltimore Facility, Hilltop & Frederick Rds., Baltimore 28, Md. / RI 7-0200 / *C 58
Digital converters and comparators, digital data handling devices and systems, automatic control equipment, digital computers, telemetering system multipliers / RMSa Ms(50) Me(1947) Dc
- AERONUTRONIC SYSTEMS, INC., COMPUTER DIVISION** (a subsidiary of Ford Motor Co.), Ford Rd., Newport Beach, Calif. / ORiole 3-2520 / *C 59
Family of message entry and display equipment for digital computers, including FLIDEN, TACDEN and GRAPHDEN; large high-speed random access magnetic disk storage systems; multi-megabyte switching and storage systems; solid state digital printed circuit components (flip-flops, read and write amplifiers, blocking oscillators, diode logic complete magnetic drum memory systems; airborne digital computers; military ground support and control systems, including analog and digital data processing equipment / RMSCa Ms(250) Se(1950) DAIC
Dr. Ernest H. Krause, VP & Gen. Mgr. / Dr. Dean Wanlass, Dir. of Mktg.
- Aerovox Corp., Belleville Ave., New Bedford, Mass. / WYman 4-9661 / *C 59
Capacitors — all types, resistors, ferrite cores, jacks, magnets, switches / RMSa Ls(3000) Le(1922) Ic
- Ahrendt Instrument Company, 4910 Calvert Rd., College Park, Md. — no response '58, '59
- Airborne Instruments Laboratories, Modac Division, 86 Franklin Ave., Thornwood, N.Y. — moved, address not known
- Airborne Instruments Lab., Inc., 160 Old Country Road, Mineola, L.I., N.Y. — no response '58, '59
- Aircraft Armaments, Inc., Cockeysville, Md. / V 5-8400 / *C 59
Research, design, development, and manufacture and test of mechanical, explosive, electronic, and electro-mechanical equipment for land, sea, and air used based on custom specifications / RMSa Ls(780) Se(1950) DAIC
- Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa. — no response '58, '59
- Airflyte Electronics Co., 535 Avenue A, Bayonne, N.J. / HEMlock 6-2230 / *C 58
Electronic components, analog-to-digital and digital-to-analog converters, rotary segmented switches, custom encapsulation services, plug-in and potting circuits, embedded assemblies and components, stepping switches / RMSa Ms(60) Se(1950) DAIC
- Airpax Electronics, Inc., Seminole Div., Ft. Lauderdale, Fla. / LUDlow 3-6160 / *C 59
Complete magnetic, servo and data logging systems / RMSa Ms(325) Me(1948) Ic

- (19) Airtronics, Inc., 5522 Dorsey Lane, Washington 16, D.C.
/ OLiver 4-1676 / *C 58
- Memory units, specialized computer components, specialized instrumentation, and other similar engineering services. Computer-type, packaged, logical, plug-in, potted, printed circuits. Consulting services. Electronic and frequency counters; shift registers; magnetic storage systems / RMSCa Ms Me (1947) Ic
- ALADDIN ELECTRONICS, A DIVISION OF ALADDIN INDUSTRIES, INC., (formerly Aladdin Radio Industries) 703 Murfreesboro Rd., Nashville 10, Tenn.
/ CHapel 2-3411 / *C 59
- Pulse transformers, magnetic shift registers, computer logical elements utilizing magnetic materials, other magnetic core computing machine components. Ferrite cored inductors. IF transformers, transistor IF transformers / RMSa Ls(600) Le (1908) Ic
- W. W. Stifler, VP and Gen. Mgr. / A. S. Daddario, Ch. Engr.
- Alden Electronic and Impulse Recording Equipment Co., Alden Research Center, Westboro, Mass. / FOr-est 6-4467 / *C 58
- Facsimile transmitting and receiving equipment, facsimile communication systems, facsimile components, sensitized paper. Pulse recorders, automatic curve plotters. Data recording cameras. Scanners / RMSa Ms Se Ic
- Alden Products Co., Brockton, Mass. / JUNiper 3-0160 / *C 59
- Cable assemblies, metal chassis, patch cords, coil winding bobbins, breadboard kits, computer packaged circuits, connectors, magnetic cores, fastening devices, jacks, magnetic storage, lights, indicator systems / RMSa Ms(300) Me(1930) Ic
- Alfax Paper & Engineering Co., Washington St., Westboro, Mass. / FOr-est 6-4467 / *C 58
- Electrosensitive recording paper for facsimile and graphic recording / RMSa Ms Me(1942) Ic
- Allegheny Instrument Co., Inc., 1091 Wills Mountain, Cumberland, Maryland / PArkview 4-1200 / *C 57
- Data recording and computing systems for ballistic measurements / Ss(40) Se(1952) ADc RMSa
- Allen-Bradley Co., 136 W. Greenfield Ave., Milwaukee 4, Wis. / ORchard 1-2000 / *C 58
- Electric motor control and electronic components, automatic controls and equipment, capacitors, ferrite cores, resistors, switches, potentiometers / RMSa ICc
- R. D. Allen Business Machines, Inc., Front St. N.W., Grand Rapids, Mich. / GLendale 6-8541 / *C 57
- Adding machines, bookkeeping machines, cash registers, gyro instruments, etc. / RMSa Ls(1250) Me (1932) DIc
- Allgemeine Elektricitäts-Gesellschaft, Frankfurt on Main, Germany
- Semi-conductors, germanium diodes / RMSa Ic
- Allied Control Co., Inc., 2 East End Ave., New York 21, N.Y. / BUtterfield 8-7403 / *C 59
- Relays and switches / RMSa Ls(1000) Me(1938) Ic
- Allied Engineering Div., Conn. & Richards Ave., S. Norwalk, Conn. — out of business
- Allies' Products Corp., P.O. Box 188, Kendall Branch, Miami 56, Fla. / CE 5-5424 / *C 59
- Precision carbon deposited resistors / RMSa Ss(10) Se(1952) Ic
- Alwac Computer Div., El-Tronics, Inc., 13040 S. Cerise, Hawthorne, Calif. / OSborne 5-0311 / *C 58
- General purpose digital computer (ALWAC III-E), computer component parts, card converters, universal tester, magnetic tape transport, magnetic tape buffer, magnetic heads, magnetic drums, paper tape console, data reduction and input-output equipment, automatic graph plotters / RMSa Ms(110) Se(1952) DIc
- American Automatic Typewriter Co., 2323 No. Pulaski Rd., Chicago 39, Ill. / Everglade 4-5151 / *C
- Pneumatically controlled programming and testing devices. Automatic selective typing equipment (Autotypist). Testing machines for typewriters, adding machines, calculating machines / RMSa Ms(100) Le(1869) Ic
- American Electro Metal Corp., 320 Yonkers Ave., Yonkers 2, N.Y. — no response '58, '59
- American Electronic Labs., 641 Arch St., Philadelphia 6, Pa. — no response '58, '59
- American Electronics Co., 1203 Bryant Ave., New York 59, N.Y. — no response '58, '59
- American Electronics, Inc., 1025 W. 7th St., Los Angeles 17, Calif. / RIchmond 9-5361 / *C 59
- Automatic data recording systems and accessories, automation systems; nuclear products, radiation standards, badges, and counters; data processors, computers, analysis equipment, line printers, sequential recorders; magnetic amplifiers; signaling controls; magnetic card and magnetic tape readers; resolvers, synchros; telemetering systems / RMSCa Ls(1500) Me(1946) DAic
- American Enka Corporation — see The Rex Corp.
- American Hydromath Corp., 42-17 Hunter St., Long Island City 1, N.Y. / EX 2-4242 / *C 59
- Mechanical and electro-mechanical analog computers / RMSa Ss(15) Me(1940) Ac
- American Lava Corp., Manufacturers Rd., Chattanooga 5, Tenn. / AMherst 5-3411 / *C 59
- Custom manufacturing services including technical ceramics and metal-ceramic combinations / RMSa Ls(over 1000) Le(1902) Ic
- American Machine & Foundry Co., Alexandria Div., 1025 N. Royal St., Alexandria, Va. / King 8-7221 / *C 59
- System simulation using digital computers, digital computer programming, development of data transmission techniques / Ra Ms(150) Se(1955) Ic
- American Machine & Foundry Co., Computing Center, Greenwich, Conn. / *C 57
- Computing service; consulting, problem analysis, programming, coding and running of problems on Datatron digital computer or analog computer / RCPa DAc
- American Machine and Foundry, Electronics Division, 1085 Commonwealth Ave., Boston, Mass. — discontinued
- American Molded Products Co., 2727 W. Chicago Ave., Chicago 22, Ill. / AR 6-3235 / *C 58
- Molded nylon and fluorocarbon bobbins and mag-

netic tape reels / RMSa Ms(250) ?e Ic
American Printed Circuits Co., Inc., 104 Forrest St.,
Metuchen, N.J. / Liberty 8-5777 / *C 58

Printed circuits / RMSa Ss(8) Se(1953) Ic
American Research & Mfg. Corp., 920 Halpine Ave.,
Rockville, Md. / HAZelwood 7-7116 / *C 58

Magnetic and transistorized instruments and equip-
ment; magnetic and semiconductor regulated power
supplies; magnetic amplifiers; frequency multipliers;
simulators / RMSa Ms(55) Se(1954) Ic

AMP INC., Eisenhower Blvd., Harrisburg, Pa. / Jordan
4-0101 / *C 59

Solderless terminals, connectors and wiring devices,
programming plugboards and systems, patchcords /
RMSa Ls(1000) Me(1941) Ic

U.S. Whitaker, Pres. / G. Earle Walker, V.P. and
Dir. of Sales

AMPEREX ELECTRONIC CORP., 230 Duffy Ave.,
Hicksville, L.I., N.Y. / Wells 1-6200 / *C 59

Electron tubes and indicator tubes / RMSa Ms(400)
Le(1928) Ic

Frank Randall, Pres. / Lyle Backer, Dir. of Eng.
Amperite Co., Inc., 561 Broadway, New York 12, N.Y.
/ CAnal 6-1446 / *C 59

Delay relays, ballast tubes for regulation of current
and voltage / RMSa Ms(80) Le(1924) Ic

AMPEX CORP., INSTRUMENTATION DIV., 934
Charter St., Redwood City, Calif. / EMerson 9-1481 /
*C 59

Magnetic tape recorder-reproducers and readers;
magnetic tape for programming computers; mem-
ory systems; input-output devices; digital and an-
alog magnetic storage devices; data recording equip-
ment; facsimile equipment; information retrieval
devices / RMSa Ls(2000) Me(1947) Ic

Amphenol Electronics Corp., 1830 S. 54th St., Chicago
50, Ill. / BISHop 2-1000 / *C 57

Connectors for computer applications; all types /
RMSa Ls(2000) Me(1932) Ic

Analogue Controls, Inc., 200 Frank Rd., Hicksville,
N.Y. / OVerbrook 1-7300 / *C 59

Precision potentiometers, potentiometer test equip-
ment, servometers / RMSa Ms(120) Se(1954) Ic

Andersen Laboratories, Inc., 501 New Park Ave., West
Hartford 10, Conn. / ADams 3-4491 / *C 59

Solid ultrasonic delay lines, variable delay lines,
tapped delay lines and circuitry / RMSa Ms(70)
Se(1951) Ic

Anelex Corp., 150 Causeway St., Boston 14, Mass. /
RICHmond 2-1720 / *C 58

High speed printers / RMSa Ms(100) Se(1948) Ic
Applied Science Corp. of Princeton, P.O. Box 44, Prince-
ton, N.J. / SWinburne 9-1000 / *C 59

Pulse width telemetry, statistical data analysis, in-
dustrial telemetry and supervisory control, data han-
dling systems, analog computers, consulting serv-
ices, automatic and signaling controls, computing
converters, scanners, simulators, shaft-position digi-
tal encoders / RMSa Ms(320) Me(1946) Ic

Arenberg Ultrasonic Laboratory, Inc., 94 Green St., Ja-
maica Plain 30, Mass. / JAmaica 2-8640 / *C 59

Ultrasonic delay lines / RMSa Ss(8) Se(1950) Ic
Argonne National Laboratory, P.O. Box 299, Lemont,
Ill. / CLearwater 7-7711 / *C 59

Maker of Avidac, Oracle, George, automatic digital

computers and other computers, for own use and
other government agencies / RGPa Ls(3000) Ls
(1943) DAIC

Arma Div., American Bosch Arma Corp., Roosevelt
Field, Garden City, Long Island, N.Y. / PIONEER
2-2000 / *C 59

Electronic fire control systems for airborne, ship-
borne and submarine vehicles; inertial guidance
systems for missiles and aircraft; transistorized air-
borne digital computers; gyroscopic navigation
equipment / RMSa Ls(5000) Le DASc

Armour Research Foundation, Illinois Inst. of Technol-
ogy, 10 West 35th St., Chicago 16, Ill. / CALumet
5-9600 / *C 57

Design and construction of developmental com-
puters, both analog and digital, for special appli-
cations only. Digital-to-analog and analog-to-digital
converters. Data reduction systems. Magnetic re-
cording. Automatic control machinery. Servomech-
anisms. Instrumentation. Computing service: an-
alog, digital; IBM 650 digital computer, Goodye
Electronic Digital Differential Analyzers / RGP
Ls(1250) Me(1937) DAISC

Arnhold Ceramics, Inc., One E. 57th St., New York 22,
N.Y. / PLaza 5-8213 / *C 59

Two-ton high-speed press for memory cores. Cap-
less film resistors / RMSa Ss Le Ic

THE ARNOLD ENGINEERING CO., Railroad Ave.
and West St., Marengo, Ill. / (Chicago) ANDover
3-6300 / *C 59

Permanent magnets cast and sintered; magnet
cores; high permeability tape wound cores; tap-
e wound bobbin cores; powder cores; special magnet
materials / RMSa Ls(625) Me(1936) Ic
Robert M. Arnold, Pres. / Charles S. Brand, V.P.
and Chief Engineer

Askania Regulator Co., 240 E. Ontario St., Chicago 10,
Ill. — no response '58, '59

Assembly Products, Inc., 75 Wilson Mills Rd., Chester-
land, Ohio / HA 3-4436 / *C 59

Contact meter relays, panel meters, "packaged con-
trols," special electronic controls, electrically actuated
controls, automatic control equipment, analog
to digital converters / RMSa Ms(230) Me(1945)
DACc

Atlas Precision Products Co., 3801 Castor Avenue, Phila-
delphia 24, Pa. / JEFFerson 5-3700 / *C 59

Mechanical analog computers for fire control, radar,
etc.; geared mechanisms, servos, etc.; analog-to-
digital converters, sub-assemblies; precision gear
differentials, bearings / RMSa Ms(200) Me(1929)
AIC

AUDIO DEVICES, INC., 444 Madison Ave., New York
22, N.Y. / PLaza 1-6640 / *C 59

Magnetic recording tape, guaranteed defect-free for
use in computers; telemetry, seismography, auto-
mation; silicon rectifiers / RMSa Ms(150) Me
(1937) Ic

W. C. Speed, Pres. / Bryce Haynes, VP

AUDIO DEVICES, INC., RECTIFIER DIV., 620 E.
Dyer Rd., Santa Ana, Calif. / KIMberly 5-8241
*C 59

Silicon rectifiers / RMSa Ms(100) Se(1957) Ic
G. Eannarind, VP

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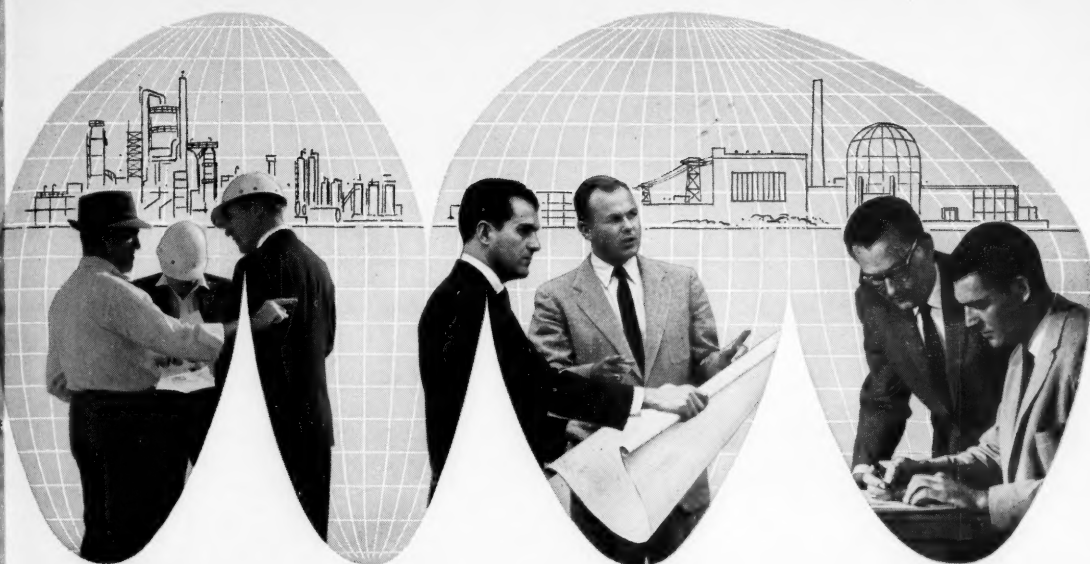
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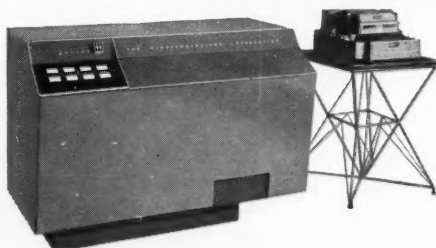
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*Only the RW-300 Digital Control Computer
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The RW-300 Digital Control Computer is the most powerful tool available today to control entire industrial processes and to provide useful data from manufacturing and testing operations. Connected directly to measuring instruments and control devices, the RW-300 collects and interprets operating data, makes control calculations and decisions, and operates valves, starts and stops motors, and takes all the other control actions necessary for fully automatic operation.

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Some of the world's largest companies have purchased the RW-300 Digital Control Computer for uses ranging

from the completely automatic control of an oil refinery unit in Texas to the monitoring of a nuclear reactor in France. Additional RW-300 installations are under way in such fields as chemical manufacturing, cement making, air traffic control, equipment testing, and data reduction.

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For further information, call or write: Director of Marketing, The Thompson-Ramo-Wooldridge Products Company, P. O. Box 90067 Airport Station, Los Angeles 45, California, OSborne 5-4601.



Thompson Ramo Wooldridge Inc.

Main offices • CLEVELAND 17, OHIO • LOS ANGELES 45, CALIFORNIA

Audio Instrument Co., Inc., 135 West 14 St., New York 11, N.Y. / OREGON 5-7820 / *C 59

Analog time delay devices; magnetic, logarithmic converters / RMSa Ss(9) Se(1949) Ic

The Austin Co., Special Devices Division, 76 9th Ave., New York 11, N.Y. / Watkins 4-3630 / *C 57

Special purpose automatic control systems for laboratory, industrial, and military purposes; analog, digital, data-handling, servo, electronic, electromechanical. Shaft position indicators and systems / RMSa Ms(division, 150, company 25,000) Me(division, 1943; company, 1878) DASCmc

Automatic Control, 430 Park Ave., New York 22, N.Y. / MU 8-8600 / *C 58

Monthly publication on automatic control and related subjects / Ss(20) Se(1954) Ic

AUTOMATIC ELECTRIC CO., Northlake, Ill. / Fillmore 5-7111 / *C 59

Rotary stepping switches and telephone-type relays for industrial control, control systems, etc. / RMSa Ls(8500) Le(1891) Ic

H. F. Lello, Pres. / V. E. James, Dir., Control Equipment & Sales

Automatic Manufacturing Div., General Instrument Corp.—see General Instrument Corp., Automatic Manufacturing Div.

AUTOMATIC OFFICE CONSULTANT, INC., 5057 Woodward Ave., Detroit 2, Mich. / TE 3-3454 / *C 59

Publishing ("The Automatic Office—A Monthly Management Report") / Ss(8) Se(1958) Ic

E. F. Murphy, Editor / M. K. Fulton, Dir., Client Serv.

Automatic Signal Division, Eastern Industries, Inc., Norwalk, Conn. / Temple 8-4791 / *C

Automatic volume-density traffic controllers; digital and analog computers; servomechanisms / MSa Ms(300) Me(1928) Ic

AUTOMATION CONSULTANTS, INC., 155 Fifth Ave., New York 10, N.Y. / OXFORD 4-6660 / *C 59

Consulting engineers (office automation field). Publishers of "Office Automation" and "Office Automation Applications" / Ca Ss(12) Se(1953) Dc

R. Hunt Brown, Pres. / Alan D. Meacham, Vice Pres.

Automation Controls Corp., 5737 West 98 St., Los Angeles 45, Calif. / SPRING 6-0420 / *C 59

Automatic control equipment; relays / RMSa Ss(20) Se(1957) Ic

Automation Engineering Laboratory, One E. Putnam Ave., Greenwich, Conn.—no response '58, '59

AUTOMATION ENGINEERS, Div. of Associated Industrial Consultants, 344 West State St., Trenton 8, N.J. / OWen 5-8509 / *C 59

Consultants in automatic control machinery, automatic materials handling equipment, and information handling equipment. Designers of specialized data processing equipment, including office machinery coupling mechanisms. Analysis of automation economics; supervision of installations / RCa Ss(20) Me(1942) ICMc

Frank Federici, Director / Lester G. Stine, Partner
Automation Progress, 9 Eden St., London N.W. 1, England / Euston 5911 / *C 58

Technical magazine on all aspects of automatic production and control

Automatic Research & Design Associates, 135 Main St. Belleville 9, N.J. / PLYmouth 9-5812 / *C 58

Consultants, designers, of servomechanisms, measuring and recording systems, telemetering systems, analog computers, digital computers / DAIC

AUTONETICS, A DIV. OF NORTH AMERICAN AVIATION, INC., 9150 E. Imperial Highway Downey, Calif. / SPRuce 3-2233 / *C 59

Inertial navigation systems, armament and flight control systems, automatic checkout equipment, analog and digital computers, data recording equipment, differential analyzers, armament control equipment, magnetic tape recorders and radars / RMSa Ls(9000) Se(1955) DAIC

John R. Moore, VP & Gen. Mgr. / S. W. Horrod, Asst. Gen. Mgr.

Avco Mfg. Corp., Research and Advanced Development Div., Wilmington, Mass. / MURdock 8-6011 / *C

Digital computers; logical, plug-in, potted, printed circuits; computer input-output equipment; magnetic reading and recording heads; environmental test equipment; sorting and counting control data recording cameras and equipment; communications systems, fire control equipment; magnetic tape readers and recorders / RMSa Ls(2200) (1955) DIC

Avion Division, ACF Industries, Inc., 11 Park Place Paramus, N.J. / COLfax 1-4100 / *C 58

Data processing equipment, encoders, decoder printed circuits, magnetic components, power supplies, packaged computer circuits, plug-in circuit analog and digital computers, digital to analog converters, automatic controls, sorting and counting controls, facsimile equipment, fire control equipment, input-output devices, electronic and mechanical integrators, regulated power supplies, character readers, and visual output devices / RMSa Ms(47) Me(1946) DACc

Avion Division-Alexandria, ACF Industries, Inc., 80 No. Pitt St., Alexandria, Va. / KING 8-4900 / *C

Analog-to-digital conversion systems; data logging systems and components / RMSa Ls(600) Se(1946) DAC

Avion Division of ACF, Erco Div., P.O. Box 209, Hyattsville, Md.

Analog computers / RMSa Ac

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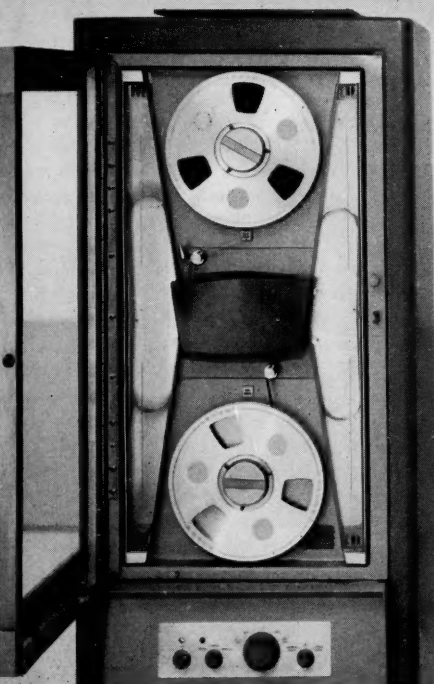
Babcock Radio Engineering, Inc., 1640 Monrovia Ave. P.O. Box 344, Costa Mesa, Calif. / LIBerty 8-7705 / *C 59

Guidance control systems, relays, signal generators, receivers, decoders, etc. / RMSa Ms(151) Ss(1948) Ic

Baird-Atomic Co., 33 University Rd., Cambridge 38, Mass. / UNIVERSITY 4-7420 / *C 59

Spectrochemical, electronic and radioisotope instrumentation for analysis and control; electronic tube proportional counters, electronic counters, sorting and counting controls, scientific instruments, analog devices, servo-mechanisms, transistors, analog-to-digital

A five-foot bookshelf is a 10-minute task



for this AMPEX FR-300 digital tape handler

Yes, the Ampex FR-300 could easily "read" or "write" the digitalized equivalent of a five-foot bookshelf in less than ten minutes. Why is this important? Because today's big computers accept and present large quantities of data in a hurry. Their time may be worth as much as \$1000 per hour. Keeping one waiting for data is expensive.

As the fastest available magnetic tape handler for "on-line" duty with these machines, the FR-300 maximizes utilization of high-speed digital computers. By placing two 6-bit alpha-numeric characters side by side on one-inch tape at 150 ips and 300 bits per inch, it achieves 90,000 character-per-second transfer rates.

Short, predictable start/stop times reduce buffer requirements and Ampex dependability further increases computer efficiency.

Ampex offers digital systems complete from head to tape (the sensational new Ampex Computer Tape, by the way) because a system designed as an integrated whole will out-perform those built from tape transports, magnetic heads, amplifiers and tape secured from a variety of different suppliers.

For lesser computers and "off-line" duty on such auxiliary digital equipment as converters, data plotters, printers, etc., the FR-400 and FR-200A tape handlers (not shown) provide a wide range of lower transfer rates. And in the background above are two fine analog recorders, the FR-100A and FR-1100, to remind you that only Ampex offers such a broad line of fixed and mobile recorders for instrumentation and control.

A folder on the FR-300 is available if you would like one.

First in magnetic tape instrumentation



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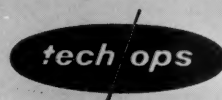
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ital converters, printers, computer components / RMSa Ms(485) Me(1938) Ic

BALLASTRAN CORP., 1701 N. Calhoun St., Fort Wayne 7, Ind. / Eastbrook 2285 / *C 59

Pulse transformers, specialty transformers / RMSCa Ms(125) Me(1946) Ic

Ordean Kiltie, Pres. & Sales Mgr. / William Weir, Ch. Engr. & Gen. Mgr.

Bank of America National Trust and Savings Association, Controllers Dept., Systems and Equipment Research Section, 500 Howard St., San Francisco, Calif. / *C 57

Digital computing service, with IBM 702 automatic digital computer / CPa Ss Se Dc

Battelle Memorial Institute, 505 King Ave., Columbus 1, Ohio / AX 9-3191 / *C 59

Research and development in all fields of the physical sciences; computer programming assistance; digital computing and consulting services / RCPa Ls (2500) Me(1929) DAic

Beckman Instruments Inc., Berkeley Div., 2200 Wright Ave., Richmond 3, Calif. / LA 6-7730 / *C 59

General purpose analog computers with .01% accuracy including completely automatic punched tape set-up systems with automatic scanning and printout. Electronic counters and data converters. Operational components for computers including: dc amplifiers, servo-set potentiometers, electronic and servo multipliers and diode function generators / RMSa Ls(400 this division, 2600 corp.) Me(1946) Ac

Beckman Instruments Inc., Systems Div., 321 No. Muller Ave., Anaheim, Calif. / Prospect 4-5430 / *C 59

Multi-channel digital data processing, computing, and recording systems, automatic process control systems, data reduction systems, DC amplifiers, digital-to-analog converters, analog-to-digital converters, amplifiers, plug-in circuits, electronic counters, counters / MSa Ms(300) Se(1956) DAc

Bell Punch Co., Ltd., 39 St. James St., London, S.W. 1, England / Hyde Park 1532 / *C 56

Small digital computers / RMSa Ls(2000) Le(1878) Dc

Bell Telephone Laboratories, Murray Hill, N.J. / CRestview 3-6000 / and 463 West St., New York 14, N.Y. / CHelsea 3-1000 / *C 59

Automatic telephone switching. Special purpose computers / Ra Ls(10,000) Le(1925) DAc

BENDIX AVIATION CORP., **BENDIX COMPUTER DIV.**, 5630 Arbor Vitae St., Los Angeles 45, Calif. SP 6-2220 / *C 59

G-15 general purpose digital computer and accessories, including small-size low-cost digital differential analyzer, punched card adapters, magnetic tape recorders and readers, plotters, special paper tape readers, and other input/output devices. Also 3-axis flight-control system simulator. Contract systems development work / RMSa Ms(450) Se(1952) Dlc

M. W. Horrell, Gen'l Mgr. / O. P. Staderman, Dir. of Mktg.

BENDIX AVIATION CORP., **BENDIX-PACIFIC DIVISION**, 11600 Sherman Way, No. Hollywood, Calif. / POplar 5-1010 / *C 59

Data logging; supervisory control and telemetering systems, digital communications systems; data processing systems; analog-digital converters; input transducers with digital outputs for temperature, pressure, time and date, speed, direction and frequency; digital conversion and buffering equipment; digital building blocks / RMSa Ls(3550) Le(1915, company; 1937, this division) DCic
R. C. Fuller, Gen. Mgr. / D. H. Brown, Asst. Gen. Mgr.

BENDIX AVIATION CORP., **ECLIPSE-PIONEER DIV.**, Teterboro, N.J. / ATlas 8-2000 / *C 59

Synchros, servo motors and motor generators, gyros, and related components for servomechanisms; magnetic amplifiers, automatic controls, analog-to-digital converters, mechanical and electronic integrators, resolvers / RMSa Ls(8500) Le(1919) DAic
J. P. Buckley, Dir. Sales and Service / J. E. Bruins, Dir. Engrg.

BENDIX AVIATION CORP., **RESEARCH LABORATORIES DIV.**, P.O. Box 5115, Detroit 35, Mich. / KENwood 7-3300 / *C 59

Analog and digital computers, numerical machine-tool controls, servomechanisms, flight simulators, automatic control and test equipment, special-purpose digital equipment, hybrid analog-digital systems, analog-digital conversion equipment / Ra Ls(600) Me(1942) DASCc

Dr. W. E. Kock, Dir. & Gen. Mgr. / Dr. G. A. Rosselot, Assoc. Dir.

Benge Associates, McIntyre Bldg., Spruce and College Sts., Asheville, N.C. / Alpine 2-0852 / *C 59

Management consultants; applications of electronic data processing to office procedures; costs, analysis of clerical routines leading to programming / RCa Ss(6) Me(1939) Cc

Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif. / BRadshaw 2-3484, GRanite 9-3723 / *C 59

Data reduction, handling, and translating equipment: record readers (oscillographic, film, etc.), data storage and retrieval machines; data display devices including line drawing plotters, point & symbol plotters, high precision digital plotters, analog plotters; special readers including map & blue print readers, digital microscopes & comparators; shaft rotation-to-digital converters; inventory & memory systems; electrically controlled typewriters; photo instrument equipment including high speed cameras, tracking & strike cameras, take-off cameras and associated equipment / RMSCa Ms(240) Se(1950) DAc

Bergen Laboratories, 11 Goodwin Ave., Fairlawn, N.J. — no response '58, '59

EDMUND C. BERKELEY AND ASSOCIATES, 815 Washington St., Newtonville 60, Mass. / DEcatur 2-5453 or 2-3928 / *C 59

Courses by mail in automatic computing machinery, mathematics, and other scientific subjects / PCA Ss(3) Se(1948) Dc (affiliated with Berkeley Enterprises, Inc.)

BERKELEY ENTERPRISES, INC., 815 Washington St., Newtonville 60, Mass. / DEcatur 2-5453 or 2-3928 / *C 59

Small robots; robot show-stoppers; Relay Moe (tittat-toe machine). Electric brain construction kit for educational purposes, Brainiac, Geniac, Tyniac. Publisher of "Computers and Automation" and other publications / RMSa Ss(6) Se(1954) Dc (Affiliated with Edmund C. Berkeley & Associates) / Edmund C. Berkeley, Pres.

Berkeley Div., Beckman Instruments, Inc. — see Beckman Instruments, Inc., Berkeley Div.

Berkshire Laboratories, 732 Bank Village, Greenville, N.H. — no response '58, '59

Bill Jack Scientific Instrument Co. — see Jack under J

Birkbeck College, Dept. of Numerical Automation, University of London, Malet St., London W.C. 1, England / LANgham 7941 / *C 59

Digital and analog computers, machine translation of language, input-output numerical analysis, spoken word recognition, simulation of intelligent behavior / RCa Ss(20) Me(1946) DAic

BJ Electronics, Borg-Warner Corp., P.O. Box 1679, 3300 Newport, Santa Anna, Calif. / Ki 5-5581 / *C 57

Digital data systems, "vibrottron" transducers, memory drums, shaft position digitizers / RMSCa Ms (450) Me(this division, 1944; company, 1910) DIC

Booz, Allen and Hamilton, 135 South LaSalle St., Chicago 3, Ill. and other cities / Financial 6-1900 (each city) / *C 59

Management consultants; technical service in applications of electronic and automatic data processing to management control systems in business, industry, and government / Ca Ls(over 500) Le(1914) DAicC

Booz Allen Applied Research, Inc., 430 Green Bay Rd., Kenilworth, Ill. (also Dayton, Ohio, and Bethesda, Md.) / ALpine 6-0270 / *C 59

Technical consulting services in operations research and the following fields of research and development: reliability, applied statistics, electromechanics, instrumentation, systems analysis, electronics and communications, physics, nuclear technology, applied chemistry, meteorology, and biochemistry / RCa Ms(75) Se(1955) Ic

George W. Borg Corp., Borg Equipment Div., 120 S. Main St., Janesville, Wisc.

Potentiometers / RMSa Ic

Borg-Warner Corporation — SEE BJ Electronics

Bourns Laboratories, Inc., P.O. Box 2112 (6135 Magnolia Ave.), Riverside, Calif. / Overland 4-1700 / *C 59

Adjustment potentiometers; potentiometer transducers for linear motion, pressure, acceleration; TRIMPOT®, TRIMIT®, and potentiometer instruments; resistors / RMSa Ms(500) Se(1946) Ic

Bowles, Andrews & Towne, Inc., 1389 Peachtree St., NE, Atlanta 9, Ga. / TR 5-7421 / *C 58

Consulting actuaries and insurance company management consultants; IBM 650 electronic data-processing and computing service / Ca Ms(60) Se(1948) Ic

BOWMAR INSTRUMENT CORPORATION, 8000 Bluffton Rd., Fort Wayne, Indiana / Sherwood 3121 / *C 59

Precision speed reducers and gear heads, precision servo motor gear heads, precision electromechanical

components, precision electrical and mechanical counters including navigational BuOrd Angle, internal pinion type counters; designing of foregoings and of electromechanical servomechanisms and electromechanical computer subsystems, aircraft indicators and electromechanical components / RMS Ms(230) Se(1951) Ic

Edward A. White, Pres. / George F. McCarthy, Gen. Sales Mgr.

Bowser, Inc., 33 No. LaSalle St., Chicago, Ill. / Andover 3-4322 / and subsidiaries / *C

Electro-mechanical file card selectors. Computing liquid flow meters, mechanical, and electronic Blenders and proportioners for automation of liquid process plants; liquid controls; money-meter machines; many other products / RCMSa Ls(4000) Le(1885) Ic

Bradley Semiconductor Corp., 275 Welton St., New Haven 11, Conn. / STate 7-7181 / *C 59

Selenium rectifiers, copper oxide meter rectifiers, silicon, selenium, and copper oxide diodes; modulators, limiters, arc suppressors, D.C. power supplies / RMSa Ms(75) Me(1939) Ic

Brender & Brender, Inc., 3911 Newberry, Wayne, Mich. / Parkway 2-0515 / *C 59

Digital computer service: data processing and programming for civil engineers using LGP-30 RCPa Ss ?e Dc

Richard D. Brew and Company, Inc., 90 Airport Rd., Concord, N.H. / Capitol 5-6606 / *C 59

Distributed constant, lumped constant and ultrasonic delay lines / RMSa Ms(120) Me(1946) Ic

Brick Electronic Equipment Co., Norwood, N.J. — no response '58, '59

THE BRISTOL COMPANY, P.O. Box 1790 CAG Waterbury 20, Conn. / PLaza 6-4451 / *C 59

Electronic and potentiometric recording, indicating controlling, signalling; alarm and telemetering instruments for standard and special functions; components including choppers, high speed relays, capsular elements, remote positioners, pressure switches and transducers; miniature standard and special socket screws; recording papers / RMS Ls(over 1000) Le(1889) Ic

W. H. Faith, Pres. / G. P. Lonergan, Mgr. Sales Promotion

The British Tabulating Machine Co., Ltd. — name changed to International Computers & Tabulators Ltd., which see

BROADVIEW RESEARCH CORP., 1811 Trousdale Dr. Burlingame, Calif. / OXford 7-1221 / *C 59

Programming; scientific calculations; military applications; business and engineering computations; conceptual design of systems; systems analysis and simulation; operations research / RCPa Ms(60) Se(1951) DAc

Warren R. Kettler, Vice Pres. / Joseph Rosenbaum, Dir. Data Systems Div.

Brown University, Computing Center, Div. of Applied Mathematics, 182 George St., Providence 12, R.I. / UN 1-2900 / *C 59

Computing service, instruction, research; IBM 650 and auxiliary equipment / RCPa Ss(4) Se(1956) Ic

Brush Instruments, Div. of Cle vite Corp., 37th & Perkins Ave., Cleveland 14, Ohio / ENdicott 1-3315 / *C 59

Direct writing oscillographs and amplifiers for recording systems / RMSa Ms(400) Me(1930) Cc
 Bryant Computer Products Division, a division of Bryant Chucking Grinder Co., Box 620, Springfield, Vermont / TUrner 5-2141 / *C 59
 Magnetic memory systems with speeds to 200,000 RPM, capacities to 120 million bits; magnetic drum, disc and storage systems; precision electromechanical devices, high speed motors, magnetic reading and recording heads; internal grinders; computer components / RMSa Ls(650) Le(1909) Ic
BULL S. A. COMPAGNIE DES MACHINES, 94 Avenue Gambetta, Paris 20, France / MEN 81-58 / *C 59
 Punch card machines. Data processing equipment. Scientific GAMMA computers / RMSa Ls(8000) Me(1931) Dc
 Joseph Callies, Pres. / Georges Vieillard, Gen. Mgr.
 J. H. Bunnell & Co., 81 Prospect St., Brooklyn 1, N.Y. / ULster 8-0100 / *C 58
 Tape winders, for teletype operations and high speed operation; communication devices and accessories for the communications field; custom fabrication and assembly of electro-mechanical and electronic assemblies; data recording equipment; mechanical, magnetic tape, and paper tape readers / RMSa Ms(70) Le(1878) Ic
 Bureau of the Census, Washington 25, D.C. / *C 59
 Statistical data processing by electronic computing system (Univacs), by commercial punch-card equipment, and by special machines designed and built for own use / RCPGa Ms(400 in electronic and mechanical processing primary organization units) Le(1890 in punch card field) Dc
 Burlingame Associates, Ltd., 510 South Fulton Ave., Mt. Vernon, N.Y. / MO 4-7530 / *C 59
 Analog computers, computing accessories, X-Y plotters, multichannel recorders, digital voltmeters, magnetic shift registers, magnetic storage systems, high speed digital display / Sa Ss(30) Me(1928) DAic
 Burndy Corp., Omaton Div., Richards Ave., Norwalk, Conn. / TEmple 8-4711 / *C 59
 Connectors, crimp-type; terminal blocks, crimp-type / RMSa Ls(600) Le(1924) Ic
JOHN H. BURNS & ASSOCIATES, 345 Mt. Lebanon Blvd., Pittsburgh 34, Pa. (also Wash., D.C.) / LOcust 3-6311 / *C 59
 Management consultants specializing in search, appraisal, selection and training of administrative systems personnel, including data processing and computer managers and senior analysts / Ca Ss Se Ic
 Burroughs Corp., 6071 Second Ave., Detroit, Mich. / Triangle 5-2260 / and elsewhere / *C
 Automatic electronic digital computers, UDEC, E101. Adding machines, bookkeeping machines, etc. Electronic digital test computers. Fast access magnetic core memory. Pulse control components, servomechanisms, etc. / RMSPa Ls(19,000) Le(1896) DSc
BURROUGHS CORP., ELECTRO DATA DIVISION, 460 Sierra Madre Villa, Pasadena, Calif. / RYan 1-0471 / *C 59
 Burroughs Datatron 205 and 220 electronic data processing systems and digital computer components; Burroughs E101 desk-size electronic digital

computer; Cardatron punched card input-output system; card to paper tape conversion equipment; Datafile magnetic tape storage system; digital computing service; tape handlers, keyboards, magnetic tape filing systems and tape recorders, paper tape punches / RMSCa Ls(1600) Se(1954) Dc
 J. R. Bradburn, VP and Gen. Mgr. / E. S. McCollister, Dir. of Mktg.

Burroughs Corp., Electronic Tube Div., P.O. Box 1226, Plainfield, N.J. / Plainfield 6-0876 / *C 59

High speed electronic switching tubes and indicating devices, pulse control instruments, electronic counters, visual output devices / MSa Ms(100) Se(1954) Ic

Burroughs Corp. Research Center, Route 202 and Central Ave., Paoli, Pa. / Paoli 4700 / *C 58

Business machines and data processing equipment research and development, relating to the corporation's basic interest in computation and data processing, and seeking new and improved methods of storing, manipulating, recording, and reading data. Assignments in product development / Ra Ls(1800) Se(1949) Dc

BUSINESS ELECTRONICS, INC., 420 Market St., San Francisco 11, Calif. / DOuglas 2-0894 / *C 59

Home study courses in programming for computers, and applications of business problems to computers / CSa Ss(7) Se(1955) Dlc

F. H. Bergholdt, Pres. / J. H. Herrett, V.P.

Byron Jackson Division — SEE BJ Electronics, Borg-Warner Corp.

C

California Computer Products, 3927 W. Jefferson Blvd., Los Angeles 16, Calif. — moved, address not known

California Technical Industries Div. of Textron Inc., 1421 Old County Rd., Belmont, Calif. / LYtell 3-8466 / *C 59

Automatic test equipment, cable assemblies, computer test equipment, paper tape readers, paper tape punches, paper tape duplicators, punched card readers / RMSa Ms(125) Me(1946) Ic

Calvert Electronics, Inc., 536 Broadway, New York 12, N.Y. / CAnal 6-7400 / *C 58

Radio and electronic tubes and components; germanium and silicon transistors; resistors. Wholesale distributors / Sa Ss(18) Se(1948) Ic

Cambridge Thermionic Corporation, 445 Concord Ave., Cambridge 38, Mass. / TRowbridge 6-2800 / *C 59

Miniature and sub-miniature plugs and strip type plotting boards, jacks; gold, silver and other finish terminals; terminal boards; connectors, press mount and spring loaded diode clips; jacks, panels, and chassis hardware; insulated terminals; coil forms and coils; capacitors / RMSCa Ms(200) Me(1940) Ic

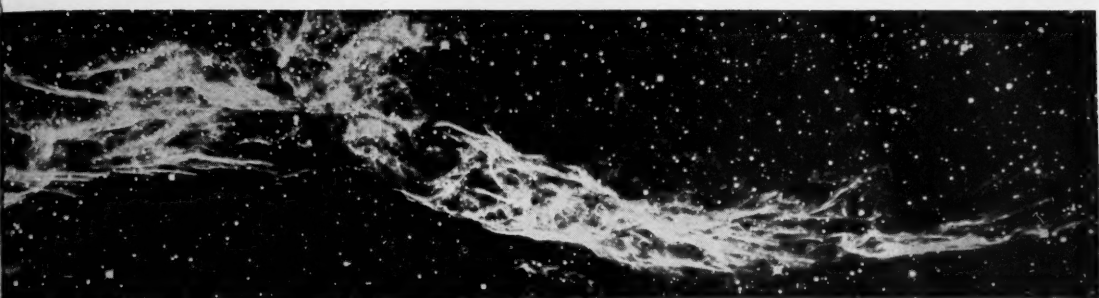
Cambridge University, Mathematical Laboratory — see University of Cambridge, University Mathematical Laboratory

Canadian Applied Research Ltd., 750 Lawrence Ave. W., Toronto, Ont., Can. / RUssel 1-1571 / *C 59

Instrumentation equipment using electronics, mechanics, optics, for application in fields of aviation;

- photography, aerial survey; magnetic amplifiers, cable assemblies, data recording cameras, analog computers, computer test equipment, automatic controls, fire control equipment, geophysical apparatus, mechanical integrators, synchros, tachometers / RMSCa Ms(600) Se(1951) ACIc
- Canadian Westinghouse Co., Ltd., P.O. Box 510, Hamilton, Ont., Canada / JACson 8-8811 / *C 59
- Analog computation center for outside customers. Also manufactures analog memory wheel, digital and special purpose computers / RMSa Ls(1000) Se(1951) AIC
- Canning, Sisson & Assoc., Inc., 1140 S. Robertson Blvd., Los Angeles 35, Calif. / BRadshaw 2-8425 / *C 59
- Publishers of "Data Processing Digest" / Sa Ss(5) Se(1954) Ic
- Carbide and Carbon Chemicals Company-AEC, Numerical Analysis Department, P.O. Box P, Oak Ridge, Tenn. / LD-220, X8671 / *C
- Numerical analysis using digital computers / RGA Ss(35) Se(1948) DC
- Carnegie Institute of Technology, Schenley Park, Pittsburgh 13, Pa. / MAYflower 1-2600 / *C 58
- Computing service using IBM 650 and 405 / RCA Ls(1300) Le(1905) DC
- Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif. / METcalf 0-5821 / *C 59
- Magnetic cores / MSA Ms(75) Se(1951) Ic
- CBS-Hytron, a Div. of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass. / SPRing 4-2360 / *C 59
- Electron tubes, semiconductor products, Germanium and silicon transistors, diodes / RMSa Ls(5000) Le(1921) Ic
- C-E-I-R, INC. (formerly Corporation for Economic and Industrial Research), 1200 Jefferson Davis Highway, Arlington 2, Va. / OTis 4-6377 (New York Office: 110 E. 42nd St., Tel: MUrrayhill 7-5736 / *C 59
- IBM 704 and 709 Computers with 32K memory. Full line of peripheral data processors. Computing and peripheral equipment available on an hourly rate basis. Operations Research, Mathematical Analysis and Structuring, Econometrics, Linear Programming, Systems Analysis, Problem Formulation and Computer Programming / RCa Ms(150) Se(1952) DAC
- Dr. Herbert W. Robinson, Pres. / William Orchard-Hays, Dir., Computer Svcs Div.
- Celco (Constantine Engineering Laboratories Co.), 70 Island Ave., Mahwah, N.J. / DAVis 7-1123 / *C 58
- Precision deflection yokes, magnetic amplifiers, pulse transformers, computer type coils, toroidal windings / RMSa Ms(125) Se(1950) Ic
- Centralab (Div. of Globe Union), 900 E. Keefe Ave., Milwaukee, Wis. / WO 2-9200 / *C 59
- Electronic components: switches, capacitors, packaged electronic circuits, computer circuits (plug-in, potted, printed), transistor amplifiers, variable resistors, switches / Sa Ls(5000) Le(1922) Ic
- Centronix, Inc., 34 Oleander St., Cocoa, Fla. — moved, address not known
- Century Electronics & Instruments, Inc., 1333 N. Utica, Tulsa 10, Okla. / LU 4-7111 / *C 59
- Multi-channel recording oscillographs of direct writing, electrophotographic, and conventional photographic types; vibration and stress analysis systems; data recording equipment and camera input-output devices; galvanometers / RMSCa Ms(124) Me(1945) Ic
- Century Engineers, Inc., 2741 N. Naomi St., Burbank, Calif. — moved, address not known
- Century Geophysical Corp., 1333 N. Utica, Tulsa, Okla. — see Century Electronics and Instruments, Inc.
- C G Electronics Corp., 15000 Central, E., Albuquerque, New Mexico / ALPine 6-9858 / *C 58
- Digital data acquisition and reduction systems, data reduction services, digital telemetry systems. Plug-in, potted, printed circuits, analog and digital computers; digital computing services; consulting services; geophysical apparatus, information retrieval devices, input-output devices, electronic integrators, inventory systems, memory systems, translation equipment, visual output devices / RMSCa Ms(95) Se(1954) DAIC
- CGS Laboratories, Inc., Routes 7 and 35, Ridgefield, Conn. / IDlewood 8-6571 / *C 59
- TRAK® Morse-to-Teleprinter Code Converter, TWX-to-CCIT Translators / RMSa Ms(160) Me(1947) Ic
- Chadwick-Helmuth Co., 472 E. Duarte Rd., Monrovia, Calif. / ELliot 8-4567 / *C 59
- Electronic multiplier, high speed, high accuracy, for both computer and instrumentation applications / RMSCa Ss(10) Se(1953) AC
- Chrono-log Corp., P.O. Box 4587, Philadelphia 31, Pa. / LOcust 7-5178 / *C 59
- Electro-mechanical devices in the digital field; digital clocks, calendars, displays; programming devices, mechanical counters, input-output devices, visual output devices / RMSa Ss(5) Se(1956) DC
- Cinch Manufacturing Corp., 1026 S. Homan Avenue, Chicago 24, Ill. / — / *C 59
- Components for computers; tube sockets, connectors, printed wiring boards, terminal boards, etc. / RMSCa Ls(1400) Le(1924) Ic
- Circuit Engineering, 66 Westland, Weston 93, Mass. / TWinbrook 4-6071 / *C 58
- Consultants. Transistor, magnetic, electronic, conductive, and other information handling circuits. / Ca Ss Se(1954) Ic
- C. P. Clare & Co., 3101 W. Pratt Blvd., Chicago 43, Ill. / AMBassador 2-7700 / *C 59
- Mercury-wetted contact relays, Clare type J relays, stepping switches, and miniature relays for the electronic and computer industry / RMSa Ls(1250) Me(1937) Ic
- C. P. Clare, Pres. / D. R. Dooley, VP in charge of sales
- Clarkson Press, Inc., 189 Van Rensselaer St., Buffalo 10, N.Y. / MADison 5101 / *C 58
- Continuous tabulating forms, computer read-out paper, high speed printer forms / RMSa Ms(90) Me(1947) Ic
- Clarostat Mfg. Co., Inc., Dover, N.H. / SHERwood 2-1120 / *C 59
- Potentiometers, resistors, switches (electronic components) / RMSCa Ls(1400) Le(1921) Ic
- Clary Corp., 408 Junipero St., San Gabriel, Calif. / AT 7-6111 / *C 59

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Space Technology Laboratories, Inc. P.O. BOX 95004, LOS ANGELES 45, CALIFORNIA.

Digital computer, components, desk calculators, automatic control equipment, keyboard printers, scanners, high speed printer, paper tape punches / RMSa Ls(1250) Me(1939) DAIC

CLEVITE TRANSISTOR PRODUCTS, 241 Crescent St., Waltham, Mass. / TWinbrook 4-9330 / *C 59

Power germanium transistors, cartridge diodes (plastic), subminiature glass diodes (germanium, silicon, germanium silicon alloy) / RMSa Ls(700) Se(1952) IC

CLIFTON PRECISION PRODUCTS CO., INC., Marple at Broadway, Clifton Heights, Pa. / MADison 6-2101 / *C 59

Synchros, servo motors, resolvers, air navigation computers, digital-to-analog converters, analog-to-digital converters / RMSCa Ls(1000) Me(1946) DAIC

John P. Glass, President & Treas. / Thomas W. Shoop, VP, Sales

Coilcraft, Inc., Cary, Ill. / MERcury 9-2361 / *C 58

Inductance coils, delay lines, pulse transformers, molded chokes, computer components / RMSCa Ms(400) Me(1944) IC

Coleman Engineering Co., 3500 Torrance Blvd., Torrance, Calif. / TE 0-6931 / *C 58

Data recording, reduction, and processing systems. Data recording cameras, automatic control equipment, telemetering systems; digital-to-analog and analog-to-digital converters / RMSCa Ms(300) Se(1950) DAIC

Collins Radio Co., Western Div., 2700 West Olive Ave., Burbank, Calif. / THornwall 5-1751 / *C 59

Kineplex data transmission equipment; mechanical filters / RMSa Ls(1000) ?e IC

Colorado Research Corp., Broomfield, Colo. / (Denver) HA 9-3501 / *C 59

Analog computers; angle encoders / RMSa Ss(55) Se(1956) AIC

Columbia Broadcasting System, Inc. — SEE CBS-Hytron Division

Columbia Technical Corp., 61-02 31st Ave., Woodside 77, N.Y. / ASToria 8-7401 / *C 59

Delay lines, coatings / RMSCa Ss(30) Se(1950) IC

Columbian Carbon Co., Mopico Color Div., 601 Cass St., Trenton 10, N.J. — no response '58, '59

Comar Electric Co., 3349 Addison St., Chicago 18, Ill. / JUNiper 8-2410 / *C 59

Relays, including hermetically sealed and sub-miniature, solenoids, coils and switches / MSa Ms(438) Me(1942) IC

Commonwealth Scientific and Industrial Organization, Radiophysics Division, Sydney, New South Wales, Australia

Maker of CSIRO Mark I electronic digital computer of Inst. for Advanced Study type / RCGPa DAIC

Comptometer Corp., 1735 No. Paulina St., Chicago 22, Ill. / BRunswick 8-5000 / *C 59

Comptometers, adding and calculating machines, comptograph adding machines, ComptoTape data preparation machines, written communications equipment, telegraphic word counter, tape winding equipment, data conversion equipment / RMSa Ls(over 1000) Le(1889) IC

COMPTRON CORP., 778 Pleasant St., Belmont 75, Mass. / IV 4-8954 / *C 58

Transistorized computer components; amplifier logical, plug-in, printed circuits; consulting services; controls, electronic counters, power supplies, shift registers / RMCSa Ss(6) Se(1956) DAIC
W. S. Macdonald, Pres. & Treas. / D. B. Macdonald, Clerk

Computer Control Co., Inc., 225 Old Connecticut Path, Framingham, Mass. (also Western Div., 2251 Barr Ave., Los Angeles 64, Calif.) / CEDar 5-6220 / *C 59

Plug-in digital computer modules, special purpose digital data handling, control instrumentation and computing systems, random access core memory, mathematical and programming services / RMSCa Ms(180) Se(1953) IC

Computer Engineering Associates, Inc., 350 N. Halstead Ave., Pasadena, Calif. / RYan 1-9323 / *C 58

Direct analog computer design; computer service center and consulting services; communications systems, computer test equipment, delay lines, electronic generators, integrators and multipliers; amplifiers, capacitors, simulators, input-output devices / RMSCa Ms(75) Se(1952) AIC

Computer Equipment Corp., 1931 Pontius Ave., Los Angeles 25, Calif. / GRANite 8-0464 / *C 59

Hybrid analog and digital systems, timing and quantizing equipment, recording millivoltmeters / RMa Ss(15) Se(1957) DAIC

Computer Instruments Corp., 92 Madison Ave., Hempstead, L.I., N.Y. / IVanhoe 3-8200 / *C 59

Precision carbon film potentiometers and pressure transducers; precision switches / RMSa Ms(100) Se(1950) IC

Computer-Measurements Corp., 5528 Vineland Ave., N. Hollywood, Calif. / STAnley 7-0401 / *C 58

Electronic counting, timing, controlling; high-speed printing; in-line remote read-out instruments; computer test equipment; digital-to-analog converters / RMSa Ms(75) Se(1949) DAIC

COMPUTERS AND AUTOMATION, 815 Washington St., Newtonville 60, Mass. / DECatur 2-5453 or 2-3920 / *C 59

Monthly computer and data processing magazine published by Berkeley Enterprises, Inc. / MSa Ss(6) Se(1951) IC

Edmund C. Berkeley, Editor

Computing Consultants, Inc., 7 Austell Way, Atlanta 1, Ga. — no response '58, '59

Computing Devices of Canada, Ltd., P.O. Box 500, Ottawa 4, Ontario, Canada / PARKway 8-1761 / *C 59

Digital and analog computers; simulators; computer components. Special purpose analog and digital computers and components. Research and development in instrumentation and automatic control. Digital and analog computing and data-processing service. Consulting services on business applications. Field maintenance service / RMSCa Ls(600) Se(1948) DAIC

Concord Control Inc., 1282 Soldiers Field Road, Boston 35, Mass. — no response '58, '59

Condenser Products Div., New Haven Clock & Watch Co., 140 Hamilton St., New Haven, Conn. / S 7-5411 / *C 59

check RCA for standard or special ferrite cores!

...for a wide range of computer applications!

Now—commercially available from RCA—a comprehensive line of fast-switching, low- and high-drive, memory cores and several new memory-plane designs to provide equipment designers with one of the broadest lines of memory core products in the industry.

MEMORY CORES • In addition to a line of standard ferrite cores developed for coincident-current memory applications (ranging in switching time from 0.2 μ sec. to 3 μ sec.), RCA now offers a new group of ferrite cores particularly suited for both high-speed, word-address memories, and slow-speed, low-drive coincident-current memories. These cores are available for an applied field (H) ranging from 0.2 to 1 oersted, and in sizes from 0.050" x 0.030" to 0.370" x 0.290". The smaller-size cores make possible the design of high-speed memory devices with driving currents suitable for either transistor or tube drivers. Typical characteristics are given in the table.

MEMORY FRAMES • A compact, rugged aluminum frame utilizing a new stack-wiring concept makes possible a "bit-packing factor" greater than ever before. 8,192 bits may be stored in a 7" x 7" x 0.3" frame.

For more economical designs and even greater compactness, a laminated frame accommodating 8,192 bits in a 5½" x 5½" x ¼" space (including terminals) is also available.

FERRITE APERTURE PLATES • RCA's apertured-plate construction utilizing ferrite-core material having low-drive, medium-speed characteristics, can store 256 bits of information in a space less than 0.9" x 0.9" x 0.025", thus making possible the design of compact memories for transportable equipment in which minimum weight and space are vital considerations.

The aperture memory plates have a nominal full driving current requirement of 320 ma., a switching time of about 1.8 μ sec., and an undisturbed output (I) signal (v_I) of greater than 40 mv. making them especially suitable for use in transistorized circuits. In addition, the precision registration of the holes makes it possible to stack the aperture plates quickly and accurately.

Rigid production controls insure excellent uniformity of undisturbed output signal and peaking time...testing assures dependable performance of each storage element.

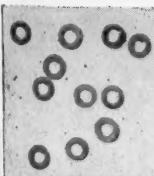
For ferrite cores having uniformity to meet your most exacting design requirements, and for dependable delivery schedules, contact your local RCA Sales Representative.



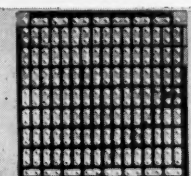
RADIO CORPORATION OF AMERICA

Semiconductor and Materials Division

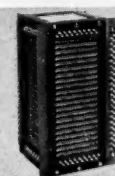
Special Ferrites Somerville, New Jersey



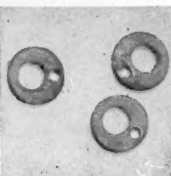
RCA MEMORY CORES



RCA FERRITE APERTURE PLATE



RCA MEMORY FRAME



RCA TRANSFLUXORS

RCA Type A	T _s μ sec.	T _r μ sec.	v _I mv.	v _U mv.	Driving Current ma. (I _U /I _U)	T _r μ sec.
XF-3806	.27	.13	160	26	1100/660	.12
XF-4019	.67	.32	106	14	725/450	.12
XF-3018H	1.18	.53	55	9	460/275	.20
XF-4028	1.08	.60	72	4	380/190	.50
XF-3973	1.28	.71	48	5	350/215	.40
XF-3673	2.80	1.35	22	4	210/126	.50
XF-4003	2.80	1.45	24	3	190/95	.50
XF-4004	2.36	1.26	26	5	190/95	.50
XF-4005	4.10	2.35	10	5	125/63	.50
XF-4006	9.0	4.8	4.5	4.5	90/45	.50
XF-4007	7.5	4.3	4.5	5.0	70/35	.50
XF-4008	13.0	6.5	2.0	3.5	40/20	.50

Time is measured from 10% of current rise to 10% of voltage (v_I) fall.
*All type numbers are for .050" x .030" x .015" size.

RCA Type A	Switching Time (T _s) μ sec. vs. Applied Field (H) in oersteds				
	H = .5	H = 1.0	H = 1.5	H = 2.0	H = 3
XF-3806					.22 .18
XF-4019					.41 .24 .163
XF-3018H			1.12	.75	.38 .226 .161
XF-3973			.73	.42	.22 .138 .105
XF-3673		1.16	.63	.40	.22 .15
XF-4003		1.04	.80	.39	
XF-4004	3.84	.90	.52	.34	.194 .129
XF-4005	3.69	.81	.46	.312	.174
XF-4006	2.36	.71	.41	.260	.142
XF-4007	1.38	.48	.28	.194	
XF-4008	1.53	.41	.242	.165	

Time is measured from 10% rise to 10% fall of v_I. Rise time of current pulse is approximately 35 millimicro-seconds. To convert drive in oersteds to current in amperes: For core size of .050 00 x .030 10, multiply H x 0.25. For core size of .030 00 x .030 10, multiply H x 0.41.
*All type numbers are for .050" x .030" x .015" size.

East: 744 Broad St., Newark, N. J.

Humboldt 5-3900

Northeast: 64 "A" Street, Needham Heights 94, Mass.

Hillcrest 4-7200

East Central: 714 New Center Bldg., Detroit 2, Mich.

TRinity 5-5600

Central: Suite 1154, Merchandise Mart Plaza,

Chicago, Ill., Whitehall 4-2900

West: 6355 E. Washington Blvd.,

Los Angeles, Calif., Raymond 3-8361

Gov't: 224 N. Wilkinson Street, Dayton, Ohio

Baldwin 6-2366

1625 "K" Street, N.W., Washington, D.C.

District 7-1260

Route 202, Somerville, N. J.

RAndolph 5-4500

Capacitors, power supplies, pulse forming networks / RMSa Me(350) Le(1870) Ic

Con-Elco, 1711 Mountain Ave., Monrovia, Calif. — no response '58, '59

Consolidated Avionics Corp., a subsidiary of Consolidated Diesel Electric Corp., 800 Shames Drive, Westbury, L.I., N.Y. / EDgewood 4-8400 / *C 59

Power supplies, regulated power supplies, translating equipment, visual output devices, electrical converters, power frequency converters / RMSa Ls(100 this div., 1500 whole co) Me(1942) DAic

CONSOLIDATED CONTROLS CORP., 16 Durant Ave., Bethel, Conn. / Pioneer 3-6721 / *C 59

Magnetic amplifiers, analog to digital converters, magnetic storage and memory systems, automatic controls, encoders, digital automation, magnetic drums, switches, robots / RMSa Ms(225) Se(1958) DAICMc

J. F. Engelberger, Pres. / C. M. Colt, Sales Mgr.

Consolidated Diesel Electric Corp. — see Consolidated Avionics Corp.

Consolidated Electrodynamics Corp., 360 Sierra Madre Villa, Pasadena, Calif. / MURray 1-8421 or SY 6-9381 / *C 59

Electronic instruments for measurement, analysis, and control; instrumentation systems for dynamic testing; magnetic amplifiers; automatic control equipment, printed circuits, automatic controls, analog to digital converters, digital and analog data-handling and conversion systems, (Sadic, Millisadic, etc.), data processing and data recording equipment, reading and recording magnetic heads, information retrieval devices, input-output devices, regulated power supplies, magnetic tape readers, magnetic storage systems, tape handlers, magnetic tape filing systems and recorders, converter magnetic tape to punch card, telemetering systems, transducers, systems engineering / RMSa Ls(2500) Me(1937) DAC

Control Data Corp., 501 Park Ave., Minneapolis 15, Minn. / FEderal 9-0947 / *C 59

Digital computers, systems, and devices; gyros, accelerometers, magnetic amplifiers, guidance and communications systems; converters; data processing equipment; resolvers, synchros, translating equipment; visual output devices / RMSa Ms(350) Se(1957) DIC

Control Electronics Co., Inc., 10 Stepar Place, Huntington Station, L.I., N.Y. / HA 7-7961 / *C 59

Computer components; electromagnetic delay lines, lumped constant/and distributed constant, fixed and variable, sonic delay lines, audio and high frequency filters. VHF-UHF frequency calibrator, direct reading phase angle meter. Electronic instruments, special power supplies / RMSa Ss(50) Se(1951) Ic

Control Instrument Co., 67 35th St., Brooklyn 32, New York / Sterling 8-0658 / *C 57

Fire-control equipment. 900 line-a-minute tabulator. Digital and analog machines and components. Character recognition equipment. Subsidiary of Burroughs Corp. / RMSa Ls(1200) Me(1934) DAic

Convair-San Diego-Electronics, a Division of General

Dynamics Corp., P.O. Box 1950, San Diego 12, Calif. / CYpress 6-6611 / *C 59

High-speed automatic data-acquisition and interpretation systems. Special purpose analog computing systems and equipment, including photoformers memories for functions of one and two variables magnetic-tape memories. Special purpose digital equipment. Analog-computer test equipment. Computing services on IBM 704 and 650 computers / RMSa Ls(800) Me(1942) Ic

Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill. / Diversey 8-6700 / *C 58

Automatic controls and equipment, data recording cameras and equipment; computing and consulting services, electrical and information converters; geophysical apparatus; magnetic tape readers and recording heads; relays, stepping switches, magnetic tape recorders; telemetering systems / RMSa Ls(1600) Le(1897) DAic

Corbin Corp., 5419 56th Place, Riverdale, Md. / AP 7-7676 / *C 58

Digital and analog consulting services; arithmetical and logical packaged computer circuits; communications systems; digital and analog computers, facsimile equipment; fire control equipment, input-output devices, integrators, multipliers, generators; telemetering systems; visual output devices / RMSa Ms(500) Me(1945) DAC

Cornell Computing Center, Rand Hall, Cornell University, Ithaca, N.Y. / Ithaca 4-3211, X 3325 / *C 59

Service computing bureau, using Datatron 220 / R(Education)a Ss(10) Se(1953) DAC

Cornell-Dubilier Electric Corp., 333 Hamilton Blvd., S. Plainfield, N.J. / Plainfield 6-9000 / *C

Test equipment. Components, including capacitors, converters, printed circuits, etc. / RMSa Ls Le(1910) Ic

Corning Glass Works, Electronic Component Dept., 550 High St., Bradford, Pa. / 2-4571 / *C 59

Electronic components, capacitors, printed circuit boards, ultrasonic delay lines, resistors, trimmers, attenuator plates, level switches, metallized glass components / RMSa Ls(13,000 in company) Le(1851) Ic

CORPORATION FOR ECONOMIC AND INDUSTRIAL RESEARCH — name changed to C-E-I-R, Inc., which see

Creed & Co., Ltd., Telegraph House, CROYDON, Surrey, England / MUNicipal 2424 / *C 59

Wide range of teleprinters and punched tape equipment for communications, data processing, automation / RMSa Ls(2000) Le(1909) DIC

Cubic Corporation, 5575 Kearny Villa Rd., San Diego 11, Calif. / BRowning 7-6780 / *C 59

Transistorized playback system; transistorized digital recording system; digital computers, analog to digital converters, data processing and translating equipment / RMSa Ms(300) Se(1950) DIC

Cudahy Publishing Company, 6141 North Cicero Ave., Chicago 30, Ill. — no response '58, '59

Curtiss-Wright Corp., Electronics Div., 631 Central Ave., Carlstadt, N.J. / GE 8-4000 / *C 58

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Bendix G-15

*the ideal computer for "on-line"
data processing and control*

In use now, as a part of several systems, the Bendix G-15 has proven itself the ideal digital computer for data reduction and control. Its high speed . . . versatile command structure . . . widely varied methods and means of input and output . . . small physical size . . . and its low cost, all contribute to the reason why the G-15 is being selected for use in more and more on-line applications.

The G-15 is the fastest general purpose computer in the low price field. In at least one case the G-15 has been chosen for real-time computation where only a million dollar computer has ever been used before.

The versatility of the G-15's basic programming system contributes heavily to its on-line ability. Commands are available for special operations essential to power and efficiency in this type of application.

Perhaps of greatest importance is the computer's unique variety of input-output possibilities. The basic G-15 includes an electric typewriter for input-output and control, a fast paper tape punch, and a magazine loaded high-speed photoelectric tape reader. Punched card and magnetic tape units are also available.

Other devices such as A to D or D to A converters may be connected simultaneously or in place of the accessories

mentioned above and operated under control of the computer.

Finally, information can be directly written on or read from the memory drum, under control of special external devices. Computation can proceed simultaneously with any form of input-output.

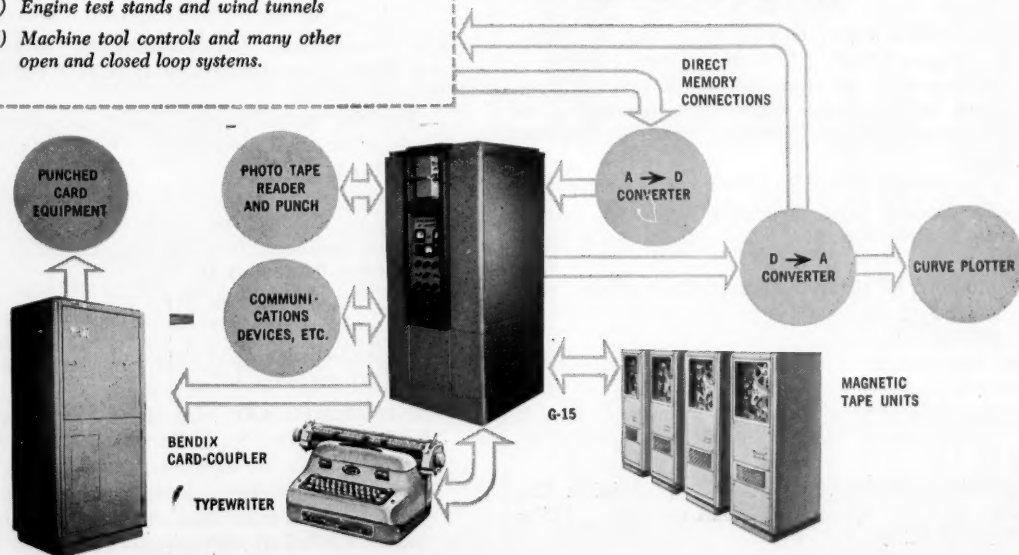
Note that all of these methods of input and output can be utilized without modification of the computer. Connectors are provided for each type of input and output described.

If ruggedness is required, the G-15 can prove an enviable record. Two of them have been in use for well over a year bolted directly to the deck of a ship. Average up-time of all G-15's is exceptional. The G-15 is compact too, and of course, it can be used as a powerful general purpose computer, as well as for on-line applications. A variety of simplified programming systems is available, including the renowned INTERCOM 1000, which can be used after four hours training or less.

The reasons are many . . . but the fact is that more and more G-15's are being leased or purchased for on-line use. If you would like to discuss your own requirements, we would be pleased to work with you. Write Department D-6A for a new 24-page bulletin on the G-15 in on-line use.

TYPICAL SYSTEMS WHERE THE G-15 CAN BE USED

- 1) Process monitors and controls
- 2) Missile tracking and impact prediction systems
- 3) Engine test stands and wind tunnels
- 4) Machine tool controls and many other open and closed loop systems.



Electronic voltage regulators, stripchart recorders; signaling controls, simulators, for design and personnel training; automatic controls and equipment; geophysical apparatus / RMSa Ls(1400) Me(1946) ICc

Curtiss-Wright Corp., Research Div., Quehanna, Pa. / *C 58

Nuclear reactors and products; computing services — analog & digital; research in aviation, electronics, ultrasonics, chemistry, plastics, metallurgy / RCa ?s ?e Ic

D

Dale Products, Inc., Box 136, Columbus, Neb. / LOcust 4-3131 / *C 59

Resistors, potentiometers, trimmer potentiometers, sub-fractional H.P. motors / RMSa Ls(650) Se(1951) Ic

Dasol Corp., 14 Charlton St., New York 14, N.Y. / CHelsea 3-1800 / *C 59

Consulting services and systems engineering, specializing in integrated data processing and materials handling systems associated with physical distribution of product lines, including materials, allocation, inventory controls, customer order processing and warehousing / Ca Ss(15) Se(1954) Ic

Data-Flo Computing Service — name changed to Minute Maid Corp., Data Processing Div. which see

DATA INSTRUMENTS DIV. OF TELECOMPUTING CORP., 12838 Saticoy St., N. Hollywood, Calif. / Stanley 7-8181 / *C 59

Data reduction equipment, tape perforators and tape handling equipment, electro-mechanical counters / RMSCa Ls(2500) Me(1947) DAc

John H. Weaver, VP & Gen. Mgr. / R. E. Poole, Dir. of Sales

DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 151 Needham St., Newton Highlands 61, Mass. / DEatur 2-6960 / *C 59

Electronic data processing systems. Training, sales, service, and service bureau / RMS(training)a Ls(750) Se(1955) DIc

W. W. Finke, Pres. / G. S. Younkin, VP

DATA PROCESSING CORP., 2727 29th St., N.W., Washington 8, D.C. / COlumbia 5-1888 / *C 59

Management and operation of data processing systems service centers, including programming and electronic computer services / RCPa Ss Se(1958) DIc

H. Jefferson Mills, Jr., Pres.

Data Processing Digest (Canning, Sisson & Assoc.), 1140 S. Robertson Blvd., Los Angeles 35, Calif. / BRadshaw 2-8425 / *C 59

Monthly bibliographic service in electronic data processing and related fields / RMSa Ss(5) Se(1954) Dc

Data Systems Div., Norden-Ketay Corp., 13210 Crenshaw Blvd., Gardena, Calif. / FA 1-1775 / *C 58

Special purpose digital data systems and numeric position control systems / RMSa Ms(50) Se(1955) Dc

Datex Corp. (a subsidiary of G. M. Giannini & Co., Inc.), 1307 So. Myrtle Ave., Monrovia, Calif. / ELliot 9-5381 / *C 59

Analog-to-digital shaft position encoders; automatic controls; data recording and positioning systems; input-output devices, pressure scanners and pressure cutoffs / RMSa Ms(110) Se(1958) DA

The Datics Corp., 6000 Camp Bowie Blvd., Fort Worth 16, Texas / Dallas, TA 4-5854; Ft. Worth, PE 8-6501 / *C 59

Services in electronic digital computing, data processing, data reduction, consulting, research and development, technical writing / RCa Ss(20) Se(1956) DAc

The Daven Co., Route 10, Livingston, N.J. / WYmar 2-4300 / *C 59

AC summing amplifier networks (RC); AC and DC resistance networks; integrating networks; differentiating networks; phase shifters; voltage ratio standards; plug-in, potted circuits; computer components; embedded assemblies and components power supplies; resistors; stepping switches. Consulting services / RMSCa Ms(475) Me(1929) AL

Davies Laboratories, Inc., Div. of Minneapolis-Honeywell Regulator Co., which see

Daystrom Instrument, Div. of Daystrom, Inc., Archbald Pa. / Jermyn 1100 / *C 59

Special purpose computing devices / RMSa Ls(1000) Se(1951) DAISc

Daystrom Systems, Div. of Daystrom, Inc., 5640 La Jolla Blvd., La Jolla, Calif. / GLencourt 4-0421 / *C 58

Complete solid state digital process control systems; transistorized random access magnetic core memory systems; low-level analog-to-digital converters, etc. / RMSa Ms(60) Se(1956) DAICc

Daystrom Transicoil Corp., Worcester, Montgomery County, Pa. / JUono 4-2421 / *C 58

Servó and synchro components and assemblies / RMSCa Ms(200) Se(1950) Ic

The de Florez Co., Inc., 200 Sylvan Ave., Englewood Cliffs, N.J. / LOwell 7-3990 / *C 59

Register controls, servomechanisms, control systems, mechanical design. Research and development. Synthetic training devices / RMCa Ms(50) Se(1948) DAICc

DeJur-Amsco Corp., Electronic Sales Div., 45-01 Northern Blvd., Long Island City 1, N.Y. / Ravenswood 1-4009 / *C 59

Precision potentiometers, panel instruments, precision electrical connectors / RMSa Ms(500) Le(1922) Ic

Delco Radio Div., General Motors Corp., 700 East Firmin St., Kokomo, Ind. / Gladstone 2-8211 / *C 59

Power transistors; inverters; power supplies / RMSa Ls(4000) Me(1936) Ic

Delttime, Inc., 608 Fayette Ave., Mamaroneck, N.Y. / Mamaroneck 9-5800 / *C 57

Magnetostrictive delay lines and registers / RMSa Ms(75) Se(1953) Ic

DENNISON MFG. CO., MACHINE SYSTEMS DIVISION, 300 Howard St., Framingham, Mass. / Trinity 3-3511 / *C 59

Print punch marking machines, tickets and accessories for basic input media to data processing systems / RMSa Ls(2700) Le(1844) Ic

DIALIGHT CORP., 60 Stewart Ave., Brooklyn 37, N.Y.

/ HYacinth 7-7600 / *C 59

Indicator lights, pilot lights, ultra-miniature indicator lights ("Datalites") for computer and automation fields. Also Data-Strip and Data-Matrix for computers, etc. Oil-tight indicator lights for heavy-duty industrial applications / RMSa Ms Me(1937) Ic

R. E. Greene, Vice Pres. and Gen. Mgr.

Diamonite Products Mfg. Co., Shreve, Ohio / JO 7-4211 / *C 59

High strength, low loss, high density, electrical insulating vacuum tight alumina ceramics / RMSa Ms(150) Me(1940) Ic

DI/AN CONTROLS, INC., 40 Leon St., Boston 15, Mass. / Highlands 5-5640 / *C 59

Buffer storages, memories, special purpose digital and analog computers, code and format converters, digital computer elements, counters, magnetic and transistor shift registers and logical elements, transistor circuit packages, plug-in circuits, servo amplifiers, special instrumentation equipment / RMSa Ss(40) Se(1958) DAlc

Robert D. Kodis, Pres. / Nathan O. Sokal, Technical Sales Mgr.

Dian Laboratories, Inc., 611 Broadway, New York 12, N.Y. / AL 4-6555 / *C 59

Analog computing services; general purpose analog computers. Design and construction of special purpose computers, simulators, and trainers / RMSCa Ss(10) Se(1955) Ac

JOHN DIEBOLD & ASSOC., INC., 40 Wall St., New York 5, N.Y. / WH 3-9115 / *C 59

Management consultants specializing in management science and automatic data processing. Counsel; training; courses; published subscription information service / C(training)a Ss(30) Se(1954) Ic

Diehl Mfg. Co., 1225 Finderne Ave., Somerville, N.J. / RA 5-2200 / *C 59

Servomotors; tachometers; resolvers; servo amplifiers; servo systems; high frequency phase shifters / RMSa Ls(2700) Le(1888) Ic

Digital Equipment Corp., Maynard, Mass. / TWIn Oaks 7-8821 / *C 59

Digital computers, digital test equipment; digital system building blocks; special computer systems / RMSa Ms(50) Se(1957) Ic

Digital Service Labs, 23922 Crenshaw Blvd., Torrance, Calif. / DAvenport 5-0711 / *C 59

Electronic computers, service test equipment, and paper tape preparation equipment / RMSCa Ss(8) Se(1955) DAlc

DIGITRONICS CORP., Albertson Ave., Albertson, L.I., N.Y. / Pioneer 7-5090 / *C 59

Digital computing and data processing systems; auxiliary tape processing equipment including tape interrogators, converters, tape tester; clutches; high speed perforated tape readers / RMSCa Ms(70) Se(1957) DICc

Albert A. Auerbach, Pres. / Robert F. Shaw, Secy. Dilectron Div. of the Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Cal. / RYan 1-8631 / *C 58

Miniature pulse transformers, delay lines, ceramic

THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959

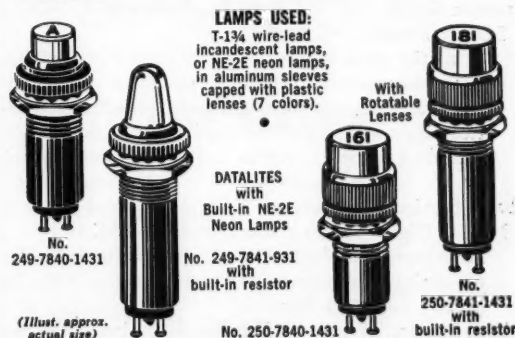


In this brochure—complete facts on DIALCO's

DATALITES

For the Computer-Automation Industries

DATALITES by DIALCO are ultra-miniature Indicator Lights specially designed to meet the critical requirements of the computer-automation fields. Made in 2 basic styles: **Lamp Holders** with DIALCO's own replaceable Lamp Cartridges (see above); or integrated DATALITES with **Built-in Neon Lamps** which are **not replaceable** (see below). Ultra-compact, single units mount in $\frac{3}{8}$ " clearance hole; the twin-lamp assembly mounts in $\frac{1}{2}$ " clearance hole.



(Illustr. approx. actual size)

DATALITES have fully insulated terminals and conform to all applicable military specifications. Integrated units are available with or without built-in resistors. The cylindrical lenses can be hot-stamped with digits, letters, etc. Complete details in Brochure L-160. Send for it now.

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60 STEWART AVE., BROOKLYN 37, N.Y. • HYacinth 7-7600

disc capacitors / RMSa Ms(200) Se(1953) Ic
 DIT-MCO, Inc., Electronics Div., 911 Broadway, Kansas
 City 5, Mo. / Harrison 1-8484 / *C 59
 Universal automatic electrical circuit analyzers and
 multipliers; functional testers for testing complex
 relay circuitry / RMSCa Ms(165) Se(1953) Ic
 DocuMation, Inc., Woodbury, N.J. / TI 5-7876 / *C 58
 Consulting services — automation applied to infor-
 mation retrieval and documentation in general; and
 publishing / RCA Ss(5) Se(1956) Ic
 Donner Scientific Co., 888 Galindo St., Concord, Calif.
 / MULberry 2-6161 / *C 59
 Analog computers; multipliers; delay and function
 generators; amplifiers / RMSa Ms(200) Se(1953)
 ACc
 Dorsett Laboratories, Inc., 401 East Boyd, Norman,
 Okla. / JEFFerson 4-3750 / *C 59
 Special analog computers / RMSCa Ss(30) Se(1950)
 AlC
 Dresser Industries, Inc. — see Southwestern Industrial
 Electronics Co. Div.
 J. H. Drillick Research Lab., Inc., 433 Central Ave.,
 Orange, N.J. / ORange 2-2440 / *C 58
 Components for computers / Ra Ss Se Dc
 Arnold I. Dumey, 29 Barberry Lane, Roslyn Heights,
 N.Y. / *C 59
 Consultant, data handling problems / Ca Ss Se Dc
 DX Radio Products Co., 2300 W. Armitage Ave., Chi-
 cago 47, Ill. — no response '58, '59

E

Eagle Signal Corp., 202 20th St., Moline, Illinois /
 MOline 2-5571 / *C 58
 Timers and counters for automatic control of mach-
 ines and processes; hermetically sealed timers;
 automatic controls and equipment; sorting and
 counting controls; stepping switches / RMSa Ls
 (500) Me(1928) Ic
 Eastern Industries, Inc. — SEE Automatic Signal Division
 Eastman Kodak Co., 343 State St., Rochester 4, N.Y. /
 LOcust 2-6000 / *C 59
 Primarily manufacturer of photographic equipment.
 Also manufactures cellulose yarns and staple syn-
 thetic and organic chemicals and dyestuffs, fire con-
 trol equipment, facsimile equipment (photocopy),
 recording paper / RMSa Ls(74,000, world-wide)
 Le Ic
 Ebasco Services Incorporated, 2 Rector St., New York 6,
 N.Y. / Digby 4-4400 / and elsewhere / *C 57
 Management advisory services. Applications of data
 processing equipment in business; etc. / CPa Ls
 (1600) Le(1905) Dlc
 Eclipse-Pioneer Division — SEE Bendix Aviation Corpo-
 ration
 Edgar, Wesley B., 206 Palmetto State Life Bldg., 1310
 Lady St., Columbia 1, S.C. — no response '58, '59
 Edin, a Div. of Epsco, Inc., 207 Main St., Worcester 8,
 Mass. / PL 7-8394 / *C 59
 Industrial and medical electronic instruments, oscil-
 lograph recorders and amplifiers, frequency ana-
 lyzers, weld analyzers, recording papers / RMSa Ss
 (45) Me(1935) Ic
 Thomas A. Edison Industries, Instrument Division of
 McGraw-Edison Co., 36 Lakeside Ave., West Orange,
 N.J. / ORange 3-6800 / *C 58
 Rotary servo-synchro components and complete sub-
 systems. Time delay relays, thermostats, sensitive
 D.C. relays, and other thermal devices. Magnetic
 amplifier; computer packaged circuits, magnetic
 heads, servo multipliers / RMSa Ms(360 div.) Me
 1940 div.) ISc
 Edo Corp., 13-10 111th St., College Point 56, N.Y. /
 HICKory 5-6000 / *C 59
 Delay lines / RMSa Ls(500) Le(1925) Ic
 Educational Research Corp., 10 Craigie St., Cambridge
 38, Mass.
 Digital computers; punch card machines / RMSa Ic
 EECO Production Co. — SEE Engineered Electronics Co.
 EFCON (Electric Fabricators, Inc.), 682 Broadway, New
 York 12, N.Y. / SPing 7-4900 / *C 59
 Precision plastic film, high voltage and tantalum
 capacitors / RMSa Ss(30) Se(1952) Ic
 ELCO CORP., "M" Street below Erie Ave., Philadelphia
 24, Pa. / CUMberland 9-5500 / *C 59
 Tube sockets for standard and printed circuit use,
 as well as complete line of printed circuit con-
 nectors, rack and panel, audio and power connectors
 / RMSa Ms(285) Me(1947) Ic
 Benjamin Fox, Pres. / Leo Kagan, Vice-Pres.-Sales
 Electralab Inc., Industrial Center, Needham Heights 94,
 Mass. / HILLcrest 4-5000 / *C 59
 Printed circuits / RMSa Ms(50) Se(1951) Ic
 Electrical and Physical Instrument Corp., 42-19 27th
 St., Long Island City, N.Y. — no response '58, '59
 Electro Instruments, Inc., 3540 Aero Court, San Diego
 11, Calif. / BRowning 7-6590 / *C 59
 Digital voltmeters; digital ohmmeters, analog-to-
 digital converters, card converters, frequency count-
 ers, X-Y Recorders, wideband DC amplifiers, go
 no-go systems, automation systems, digital testers,
 and other digital instruments / RMSa Ms(300)
 Se(1954) Ic
 ELECTRO PRODUCTS LABORATORIES, INC., 4501
 N. Ravenswood Ave., Chicago 40, Ill. / LONGbeach
 1-1707 / *C 59
 Metal sensing transducers, over/under speed con-
 trols, electronic tachometers / RMSa Ms(50) Me
 (1936) DAic
 Richard C. Crossley, Pres. / Lloyd A. Thacher, Sales
 Mgr.
 ElectroData Div. of Burroughs Corp. — see Burroughs
 Corp., ElectroData Div.
 Electrol, Inc., 9000 W. Pico Blvd., Los Angeles 35, Calif.
 / BRadshaw 2-6010 / *C 59
 Diode function generators, DC amplifiers and count-
 ers / RMSa Ss(20) Se(1957) ACc
 N. V. Electrologica, 9 Paleisstraat, The Hague, Nether-
 lands / 184260 / *C 59
 Digital computers / RMSCa Ms(100) Se(1956) Dc
 Electro-Machine Corp., Box 565, Umatilla, Florida — no
 response '58, '59
 Electro-Measurements, Inc., 7524 S.W. Macadam, Port-
 land 19, Ore. / CHerry 6-3332 / *C 59
 ESIAC analog computer for calculating and plotting
 values of algebraic functions of a complex variable
 / RMSa Ms(80) Se(1949) Ic
 Electro-Mec Laboratory, Inc., 47-51 33rd St., Long Is-
 land City 1, N.Y. / STillwell 6-3402 / *C 59

Potentiometers, precision, variable, wire wound; digitometers (analog to digital converters); goniometer, precision shaft positioner, to evaluate, test and calibrate potentiometers / RMSa Ms(125) Se (1950) DA1c

ELECTRO-MECHANICAL RESEARCH, INC., P.O. Box 3041, Sarasota, Fla. / *C 59

Telemetry transmitting and acquisition equipment / RMSa 1c

T. E. Stewart, VP, Sales

ELECTROMETRIC DIVISION OF WHITEWATER ELECTRONICS, INC., 136 W. Main St., Whitewater, Wis. / 986 / *C 59

Delay lines for computers and radar systems; inductors of any type / RMSa Ms(150) Se(1955) 1c

A. P. Falduto, Pres.

Electro-Miniatures Corp., 606 Huyler St., South Hackensack, N.J. / HUBbard 9-7770 / *C 59

Slip rings, ring and brush assemblies, coded commutators, rotary switches / RMSCa Ms(55) Se (1954) ICc

THE ELECTRO-MOTIVE MANUFACTURING CO., INC., South Park and John Sts., Willimantic, Conn. / HA 3-4551 / *C 59

CAPACITORS: molded mica, dipped mica, silvered mica film, ceramic tubular paper, paper dipped, mylar-paper dipped, ceramic disc, ceramic feed-thru, ceramic variable, variable mica trimmer and padder — for computer and other uses / RMSa Ls(1,600) Me(1945) 1c

J. A. Flanzer, VP / L. J. Healy, Sales Mgr.

ELECTRONIC ASSOCIATES, INC., Long Branch, N.J. / Capital 9-1100 / *C 59

Analog computers, analog plotters and recorders, digital data plotters, analog-digital computer linkage equipment, data processing-logging equipment and systems, development engineering, computation center services / RMSCa Ls(1,000) Me(1945) DACc

Lloyd F. Christianson, Pres. / A. L. Adamson, Exec. V.P.

ELECTRONIC BUSINESS SERVICES, 3266 Hunts Point Rd., Bellevue, Wash. / GLencourt 4-5810 / *C 59

Consultants in automation and data processing service specializing in the needs of small and moderate size business firms / RMSC(Data Processing Services)a Ss(3) Me(1955) 1c

Dorsey S. Lewis, Owner / Adelbert K. Galloway, Engr.

Electronic Computer Company, 6191 Ridge Ave., Philadelphia 28, Pa. — no response '58, '59

Electronic Computer Programming Institute, 1234 Broadway, New York 1, N.Y. / WIsconsin 7-4191 / *C 58

Consultants in office automation, punched card systems, integrated data processing and electronic data processing. Courses in computer programming at training center in New York or through homestudy / C(education)a Ss(8) Se(1956) D1c

Electronic Contractors, Inc., 2101 SE 6th St., Portland, 14, Ore. / BE 4-3515 / *C 58

AC network computers and analyzers, Enns power network computer / RCMSa Ss(20) Se(1953) Ac

THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959



**Specialists in the
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MODERN ANALYTICAL
TECHNIQUES
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Financial Problems**

**NEWEST MOST VERSATILE
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- ★ **Market Research**
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- ★ **Econometrics**
- ★ **Economic and Industrial Development Studies**

C-E-I-R, Inc.

1200 JEFFERSON DAVIS HIGHWAY, ARLINGTON 2, VA.

Electronic Control Systems, Inc., 2136 Westwood Blvd., Los Angeles 25, Calif. / GRanite 8-4266 and Bradshaw 2-0845 / *C

Special purpose data-handling systems for military and industrial use; automatic continuity tester, statistical analyzer, machine tool control systems / RMSa Ms(85) Se(1953) DAC

ELECTRONIC ENGINEERING COMPANY OF CALIFORNIA, 1601 East Chestnut Ave., Santa Ana, Calif. / Kimberly 7-5501 / *C 59

Electronic research and development in the fields of precision timing equipment, data processing and translating equipment and guided missile test range equipment; card-to-magnetic-tape converters, magnetic-tape-to-card converters / RMSa Ms(250) Me(1947) Ic

Burgess Dempster, Pres. / R. B. Bonney, Vice-Pres.

Electronic Fabricators, Inc. — see EFCON

Electronic Noise Generator Co., P.O. Box 45344, Airport Station, Los Angeles 45, Calif. — no response '58, '59

Electronic Research Associates, Inc., 67 Factory Place, Cedar Grove, N.J. / CEnter 9-3000 / *C 58

Semiconductor and transistorized designs, power packs, packaged circuits, packaged computers / RMSa Ms(75) Se(1953)

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif. / CH 5-3771 / *C 58

Electronic components for aircraft and missiles, RF systems and subsystems, automatic and signaling controls, regulated power supplies / RMSa Ms(210) Me(1947) ICA

Electronic Transformer Co., Inc., 70 Washington St., Brooklyn 1, N.Y. / MAin 5-6123 / *C 58

Coils, pulse transformers, all types of magnetic components for computer and other uses / RMSa Ms(165) Me(1937) Ic

Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass. / TRowbridge 6-9100 / *C

Electronic and photoelectronic controls, "Photo-switches," etc. Automatic control and data processing machinery / RMSa Ls(1500) Me(1937) DAC

Electronics Development Co., Inc., 3743 Cahuenga, No. Hollywood, Calif. / STanley 7-3223 / *C 59

Wide-band data transmitters and receivers, ground and airborne; telemetering systems, television transmitters / RMSa Ss(20) Se(1954) Ic

Electrosnap Corporation, Switch, Optical & Scientific, and Astromatic Divisions, 4218 Lake St., Chicago 24, Ill. / VanBuren 6-3100 / *C 59

Lighted controls; snap action, multipole, subminiature, and miniature switches; stepping switches; push-pull controls / RMSa Ms(350) Se(1946) Ic

Elgenco, Inc., P.O. Box 90344, Airport Station, Los Angeles 45, Calif. / FRontier 5-4685 / *C 59

Low frequency Gaussian noise generators for analog computers / RMSa Ss(5) Se(1955) Ic

Elliott Addressing Machine Co., 143 Albany St., Cambridge 39, Mass. / TRowbridge 6-2020 / *C 59

Addressing equipment and addressing stencils of various sizes, including punch card stencil ($3\frac{1}{4} \times 7\frac{3}{8}$). Punched paper tape-to-stencil converters. Punch card and punch card stencil comparing and selective addressing / RMSa Ls(1000) Le(1900) Ic

Elliott Bros. (London) Ltd., Century-Works, Lewisham, London, S.E. 13, England, and Computing Machine Div., Elstree Way, Borehamwood, Herts., England / Tideway 2323, Elstree 2040 / *C 59

Servomechanisms; Elliott 402, 405, 405M, 802, electronic digital computers, punched card reader, punched tape reader; GPAC (General purpose analog computer). Computing services; components, instrumentation and control for process industries / RMSa Ls(3500) Le(1800) DASCc

El-Rad Mfg. Co., 2800 W. Cullom Ave., Chicago 18, Ill. / IRving 8-7300 / *C 59

Delay lines, pulse transformers, coils / RMSa Ms(250) Me(1944) Ic

Engineered Electronics Co., 506 E. First St., Santa Ana, Calif. / Kimberly 7-5651 / *C 59

Electronic plug-in circuits, vacuum tube and transistorized, decade counters, vacuum tube and transistorized, DC amplifiers, power supplies, stepping switches / RMSa Ms(100) Se(1954) Ic

Engineers Northwest, 1554 Nicollet Ave., Minneapolis 3, Minn. / Re 5541 / *C 59

Test-scoring machines and equipment / RMSa Ss(45) Me(1945) DAC

The English Electric Company, Ltd., Marconi House, Strand, London, WC2, England / Covent Garden 1234 / *C 59

Deuce, universal digital computer; also special purpose electronic digital computers for use with kinetic heat simulators / RMSa Ls(1100) Dc

Epsco Components, 588 Commonwealth Ave., Boston 15, Mass. / COpley 7-1524 / *C 58

Components for automatic data processing; miniature shift registers, magnetic logic elements, precision delay lines, pulse transformers, counters, plug-in logic modules, magnetic amplifiers, packaged computer circuits, coils / RMSa Ms(60) Se(1954) Ic

Epsco, Inc., 588 Commonwealth Ave., Boston 15, Mass. / COpley 7-8100 / *C 59

Magnetic core buffer storage; translating equipment, digital to analog and analog to digital converters, automatic control systems, DA-102 differential DC amplifier, digital recorder, Addaverter computer linkage systems, visual displays, input-output devices, memory systems, magnetic tape recorders; analog computers, rocket motor test systems / RMSa Ls(700) Se(1951) DAICMc

Erco Plant — Nuclear Products — Erco, Div. of ACF Industries, Inc., Riverdale, Md. / WArfield 7-4444 / *C 59

Special purpose analog computers, test equipment computers, magnetic clutches, simulators / RMSa Ls(1300) Le(ACF, 1899) Alc

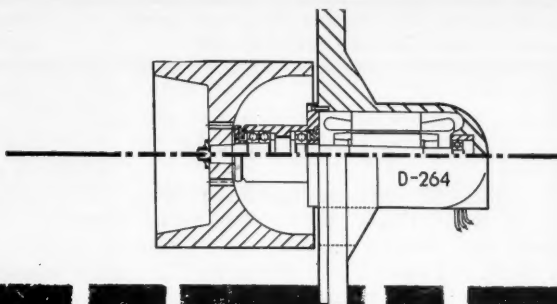
ESC CORPORATION, 534 Bergen Blvd., Palisades Park, N.J. / WIndsor 7-0400 / *C 59

Delay lines, pulse forming networks, pulse transformers, filters, embedded assemblies and components, shift registers, miniature pulse transformers, etc. / RMSa Ms(230) Se(1953) Ic

Morton Fassberg, Pres. / Stanley S. Packer, Vice Pres.

E-Z Sort Systems, Ltd., 45 Second St., San Francisco 5, Calif. / Garfield 1-8005 / *C 59

This is our line



If you're establishing the requirements for a magnetic storage drum, you have to consider storage capacity, density, signal frequency, access time.

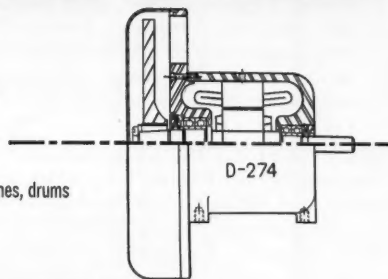
We think of the same drum in terms of the accurate distribution of mass about an axis, in terms of machining to minute tolerances, preloading and lubrication of precision bearings, and in terms of precise dynamic balance.

We've always specialized in designing and building precision rotary machinery, including many highly successful magnetic storage devices — small ones and large ones, drums and discs — with speeds to 30,000 rpm, eccentricities under fifty millionths (.00005"), and with manufacturing costs at sensible levels. We'd like to tell you about them and offer you the benefit of our considerable experience in the field.

The Whitnson Manufacturing Company

Route 6 and New Britain Avenue . . . ORchard 7-2607

Farmington, Connecticut



Edge-punched cards for filing and sorting data. Special cards for correlation of facts. Control systems for a number of electronic computers / RMSa Ms (246) Me(1935) Ic

F

Fabrica Addizionatrice Italiana S.S., Viale Umbria 36, Milan, Italy

Desk calculators to add, subtract, multiply, divide, print / RMSa Dc

Facit, Inc., 404 4th Ave., New York 16, N.Y. (subsidiary of AB Atvidabergs Industrier, Stockholm, Sweden) / Murray Hill 4-5842 / *C 59

Desk calculators, adding machines, Odhner adding machine with multiplying features; typewriters, etc. (In 1390 A.D., copper mining) / RMSa Ls(5000) Le(1390 A.D.) Dc

Fairbanks Associates, 248 Greenwich Ave., Greenwich, Conn. — no response '58, '59

Fairchild Camera and Instrument Corp., Robbins Lane, Syosset, L.I., N.Y. / Wells 1-4500 / *C 59

Digital magnetic tape transports / RMSa Ls(1500) Le(1920) Ic

Fairchild Controls Corp., Components Div., 225 Park Ave., Hicksville, L.I., N.Y. / Wells 8-5600 / *C 59

Precision potentiometers, pressure transducers, rate gyros, accelerometers, computing converters, electronic generators. Subsidiary of Fairchild Camera and Instrument Corp. / RMSa Ms(500) Le(1920) Ic

Fairchild Engine & Airplane Corp., 118 E. 16 St., Costa Mesa, Calif. — discontinued

Fairchild Graphic Equipment, Div. of Fairchild Camera and Instrument Corp., Fairchild Dr., Plainview, L.I., N.Y. / Wells 8-9600 / *C 59

Tape perforators and operating units for local or distant automatic control of Linotypes and Inter-types / RMSa Ms(350) Ic

Fansteel Metallurgical Corp., North Chicago, Ill. / Dexter 6-4900 / *C 58

Tantalum capacitors, silicon rectifiers and selenium rectifiers / RMSa Ls(2000) Le(1907) Ic

Farrand Controls, Inc., 4401 Bronx Blvd., New York 70, N.Y. / Fairbanks 4-2210 / *C 59

"Inductosyn" numerical control equipment / RMSa Ms Se(1950) Ic

Farrand Optical Co., Inc., Bronx Blvd. and E. 238 St., New York 70, N.Y. / Fairbanks 4-2200 / *C 59

Gunfire control apparatus, rangefinders, optical and electronic sighting equipment, automatic trackers, infrared search and scanning systems, analog-digital converters, analog computers, etc. / RMSa Ls(500) Le(1923) DASCc

Federal Telephone and Radio Co., Division of International Tel. and Tel., 100 Kingsland Rd., Clifton, N.J. / Nutley 2-3600 / *C

Vacuum tubes, selenium rectifiers, germanium diodes, contact protectors, coaxial cables, magnetic amplifiers; radio and telephone systems, microwave systems, and associated components / RMSa Ls(6500) Me(1941) ISCc

Feedback Controls, Inc., 8 Erie Dr., East Natick, Mass. / TWinbrook 4-1020 / *C 59

Magnetic amplifiers, quadrature rejectors, data re-

peaters, servo multipliers, servo-motor gearheads, analog computers, computer test equipment, servo multipliers / RMSa Ms(60) Se(1954) AIC
Fenwal, Inc., 362 Pleasant St., Ashland, Mass. / TRinity
5-6111 / *C 59

Temperature indicators and controllers, fire detection systems, monitoring systems / RMSa Ls(700)
Me(1935) Cc

FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N.Y. / Circle 7-0911 / agent for Ferranti Electric Ltd., Moston, England, and Toronto, Canada / *C 59

General purpose digital computers (Pegasus, Mercury, Perseus), special purpose data processing systems, high speed paper tape readers, magnetic drums, magnetostriction delay lines, digital position measuring equipment, Ferranti Business transactor, paper tape to magnetic tape converter, automatic control equipment, translating equipment, storage systems, memory systems / RMSa Ls (14,000) Le(1896) DIC

FERRANTI ELECTRIC, LTD., Toronto, Canada — now Ferranti-Packard Electric Ltd., which see
Ferranti, Ltd., West Groton, Manchester, England, and London Computer Centre, 21 Portland Place, London W.1., England / Langham 9211 / *C 58

Digital computers (Pegasus, Mercury); packaged computer circuits; computing services; plug-in and printed circuits, card-to-magnetic-tape and magnetic-tape-to-card converters; data processing machinery, delay lines, input-output devices; paper tape and photoelectric readers, tape handlers / RMSa Ls Le Dc

FERRANTI-PACKARD ELECTRIC LTD., Industry St., Toronto 15, Ontario, Canada / ROger 2-3611 / *C 59
Computers, mark-sensing input equipment, magnetic drums, paper tape readers, automatic control equipment, communications systems, data processing machinery, inventory systems, special purpose digital computers, simulators, and associated components. Data processing systems for special applications — inventory control of flight data, flight reservations; mail sortation; JANET meteor trail communication. Consultation and research facilities involving these and allied fields. See also Ferranti Electric, Inc. / RMSa Ms(450) Le(1913) DAICc
J. Fogarty, VP and Gen. Mgr. — Electronics / E. Mann, Contracts Administrator

Ferroxcube Corp. of America, 2900 E. Bridge St., Saugerties, N.Y. / CHerry 6-2811 / *C 59

Ferrite cores, including pot cores, cup cores, recording heads, and microminiature toroids with square hysteresis loop; memory arrays, thermistors, varistors, ceramic permanent magnets, resistors, pulse transformers / RMSa Ms(200) Se(1949) Ic

Financial Publishing Co., 82 Brookline Ave., Boston 15, Mass. / KEnmore 6-1827 / *C 59

Computing service: digital; card programmed calculators, punch card / RMSa Ms(60) Le(1890) Dc

FISCHBACH, McCOACH & ASSOCIATES, INC., 331 Madison Ave., New York 17, N.Y. / OXford 7-7917 / *C 59

Management consultants specializing in applied scientific techniques to business-type problems. Com-

plete service in appraisals and installation of electronic data processing and control systems for management in business, industry, and government. Operations research; product appraisals; marketing analysis / RCPa Ss Se DAISc
Dr. J. W. Fischbach, Pres. / David McCoach III, V.P. & Treas.

Fischer & Porter Co., 330 Warminster Rd., Hatboro, Pa. / OSborne 5-6000 / *C 59

Data reduction and automation equipment including data loggers, analog-to-digital converters and recorders, digital indicators, and telemetering systems / RMSa Ls(1200) Me(1937) DAIC

Flight Research, Inc., P.O. Box 1-F, Richmond 1, Va. / REpublic 7-4163 / *C 58

Photographic data recording equipment; data recording cameras and equipment, clutches, semiconductors / RMSa Ss(40) Me(1946) Ic

Ford Instrument Co., Div. of Sperry Rand Corp., 31-10 Thomson Ave., Long Island City 1, N.Y. / STillwell 4-9000 / *C 59

Fire control systems, analog and digital computers, missile guidance systems, servo motors, differential and integrator elements, instruments for shipborne and airborne armament and navigational control, nuclear reactors, computers, systems, drives, and precision components; magnetic amplifiers; automatic control systems / RMSa Ls(4000) Le(1915) DAICc

The Foxboro Co., Neponset Ave., Foxboro, Mass. / Kingswood 3-5311 / *C 58

Industrial instrumentation and analog computers for measuring and controlling process variables. Automatic systems, controls, and signaling, special purpose industrial computing systems, automatic assembly equipment, computing services, data recording equipment; tachometers, telemetering systems, electronic and mechanical integrators, scanners / RMSa Ls(2400) Le(1908) Ic

Franklin Electronics, Inc., E. 4th St., Bridgeport, Pa. / BR 2-4800 / *C 59

All electronic digital voltage, resistance and capacitance measuring instruments / RMSa Ms(60) Se (1951) Ic

The Franklin Institute Laboratories, Benj. Franklin Pkwy. at 20th St., Philadelphia 3, Pa. / LOcust 4-3600 / *C 59

Basic and applied research and development in: chemistry, physics, solid state physics, electrical, mechanical and nuclear engineering, digital and analog computers. Automatic control machinery. Digital (Univac) computing service. Magnetic amplifiers; packaged computer circuits; converters, analog to digital, and digital to analog; electronic integrators; electronic and servo multipliers; simulators / RCPa Ms(350) Me(1946) DAIC

FRIDEN, INC., San Leandro, Calif. / NEptune 8-0700 / *C 59

Automatic desk calculators; Computyper — automatic wiring-calculating machine; Add-Punch — code tape adding-listing machine; Selectadata — automatic tape reader-selector-sorter; Teledata — automatic 5-8 channel tape transmitter-receiver. Complete line of equipment for reading, punching,

Designed and produced specially for computer service.

Switching currents to 1 amp.
High frequency-high gain.
Low saturation resistance.
High voltage ratings.
HFE control at high current.

SEMICONDUCTOR DIVISION
RAYTHEON MANUFACTURING COMPANY
SILICON AND GERMANIUM DIODES AND TRANSISTORS
SILICON RECTIFIERS • CIRCUIT-PAKS
New York, Plaza 9-3900 • Boston, Hillcrest 4-6700
Chicago, National 5-4000 • Los Angeles, Normandy 5-4221
Baltimore, Southfield 1-1237 • Cleveland, Winton 1-7005
Kansas City, Plaza 3-5330

verifying, converting, and transmitting common language tape, edge-punched cards, or tabulating cards. Complete line of integrated data processing equipment / RMSa Ls(3000) Me(1934) DIc

G

The Gamewell Co., 1238 Chestnut St., Newton Upper Falls 64, Mass. / BI 4-1240 / *C 59

Precision wire wound potentiometers, linear and non-linear, and other products / RMSa Ms(400) Le(1857) Ic

H. S. GELLMAN & CO., LTD., 110 Bloor St. West, Toronto, Ont., Canada / Walnut 3-4484 / *C 59

Electronic data processing consultants: feasibility studies, programming services, operations research, training of clients' personnel / RCa Ss Se(1955) Dc Dr. H. S. Gellman, Pres.

General Automatic Corp., 12 Carlton Ave., Mountain View, Wayne, N.J. / Clifford 6-2756 / *C 59

Electromagnetic relays / RMSa Ss(30) Se(1953) Ic General Automatics, Inc., 2443 Ash St., Palo Alto, Calif. / DA 4-0360 / *C 59

Special purpose analog and digital computers, automatic control equipment, automatic charge systems, analog less-than-limit sensors, go/no-go comparators, and timer-comparators / RMSCa Ss(10) Se(1954) DACc

GENERAL CERAMICS CORPORATION, Crows Mill Rd., Keasbey, N.J. (near Perth Amboy) / Valley 6-5100 / *C 59

Ferrites, technical ceramics, magnetic memory cores

and storage planes, memories, ceramic to metal seals; insulators; terminals / RMSa Ls(500) Le(1906) Ic

J. P. Manley, V. P. / James W. Schallerer, Sales Mgr., Applied Logics Div.

General Controls Co., 801 Allen Ave., Glendale 1, Calif. / Victoria 9-2181 / *C 58

Automatic controls for pressure, temperature, level, and flow for home, industry and the military; counters; switches / RMSa Ls(2500) Me(1930) Cc

General Cybernetics Corp., affiliate of The Angle Computer Co., Inc., 1751 No. Coronado St., Los Angeles 26, Calif. / Normandy 3-1300 / *C

Linear motion transducer reporting 1/10,000 of an inch position change; high-speed converter of punched cards to tape; industrial automation, electronic gages for automation processes, etc. Successor of General Cybernetics Associates / RCMSa Ss(18) Se(1953) DAICc

GENERAL ELECTRIC CO., Schenectady, N.Y.

Computing service: analog; network analyzer AC and DC, differential analyzer; not restricted as to users / RCPa AIC

GENERAL ELECTRIC CO., CAPACITOR DIV., John St., Hudson Falls, N.Y. / 4-3341 / *C 58

Capacitors: oil-paper, molded composition, electrolytic, plastic, film, etc., for computer circuits and other uses / RMSa Ic

F. R. Flood, Mgr. — Sales, Electrolytic Capacitors / D. F. Warner, Mgr. — Sales, Specialty Capacitors

GENERAL ELECTRIC CO., COMPUTER DEPT.,

13430 Black Canyon Highway, Phoenix, Ariz. / WI 3-2351 / *C 59

Computing systems (analog and digital) and computing and consulting services for industry, business, and military; amplifiers, automatic controls and equipment; arithmetical and logical packaged circuits; information converters of all types; electronic counters, generators, integrators, and multipliers; inventory and magnetic storage systems; regulated power supplies; character readers; shift registers / RMSCa Ls(1200) Se(1956) DAc

C. C. Lasher, Dept. Mgr. / G. A. Hagerty, Mktg. Mgr.

GENERAL ELECTRIC CO., ELECTRONIC COMPONENTS DEPT., 1811 Lemoyne Ave., Syracuse, N.Y.
Delay lines; magnetic cores / RMSa Ic

GENERAL ELECTRIC CO., LIGHT MILITARY ELECTRONICS DEPT., French Rd., Utica, N.Y. / SW 7-1000 / *C 59

Airborne computers for military use, both analog and digital / RMSa Ls(6000) Se(1952) DAc

C. D. Brown, Mgr., Mktg. / G. R. Harris, Mgr., Sales

GENERAL ELECTRIC CO., LOW VOLTAGE SWITCHGEAR DEPT., Mountain View Rd., Lynchburg, Va. / 3-6571 / *C 59

DC power supplies for computers or computer systems; airborne transformer-rectifiers for DC power; military, industrial, and special purpose, complete DC power systems or components / RMSCa Ls(2000) Le(1916) DAic

L. B. Gezon, Mgr., Marketing—Low Voltage Switchgear Dept. / J. R. Topper, Mgr. Computer Power Supplies Sales

GENERAL ELECTRIC CO., RECEIVING TUBE DEPT., 11840 W. Olympic Blvd., Los Angeles 64, Calif. / GRanite 9-7765 / *C 59

Industrial and computer electronic tubes; commercial glass, metal, and miniature tubes; military miniature, subminiature, and ceramic tubes; computer tubes specially designed and manufactured to meet the requirements of all types of computers / RMSa Ls(?) Le(1875) DAic

I. D. Daniels, Gen. Mgr. / W. F. Greenwood, Mgr.-Mktng.

GENERAL ELECTRIC CO., RECEIVING TUBE DEPT., 3800 N. Milwaukee Ave., Chicago 41, Ill. / SPring 7-1600 / *C 58

Industrial and computer electronic tubes; commercial glass, metal, and miniature tubes; military miniature, subminiature, and ceramic tubes; computer tubes specially designed and manufactured to meet the requirements of all types of computers / RMSa ?s ?e DAic

GENERAL ELECTRIC CO., RECEIVING TUBE DEPT., 316 E. 9th St., Owensboro, Ky. / — / *C 58

Industrial and computer electronic tubes; commercial glass, metal, and miniature tubes; military miniature, subminiature and ceramic tubes; computer tubes especially designed and manufactured to meet the requirements of all types of computers / RMSa ?s ?e DAic

GENERAL ELECTRIC CO., RECEIVING TUBE

DEPT., 200 Main Ave., Clifton, N.J. / GRegory 3-6387 / *C 58

Industrial and computer electronic tubes; commercial glass, metal, and miniature tubes; military miniature, subminiature, and ceramic tubes. Computer tubes specially designed and manufactured to meet the requirements of all types of computers / RMSa ?s ?e DAic

GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., 1224 W. Genesee St., Syracuse, N.Y. / GRanite 6-4411 / *C 58

Germanium and silicon transistors (signal and power); rectifiers (cells and stacks); germanium and silicon diodes; silicon unijunction transistors, and silicon controlled rectifiers; delay lines, magnetic cores / RMSa Ic

J. H. Sweeney, Mgr., Mktg. / W. O. Hoverman, Mgr. of Sales

GENERAL ELECTRIC CO., SPECIALTY ELECTRONIC COMPONENTS DEPT., West Genesee St., Auburn, N.Y. / 3-7321 / *C 58

Computer elements: shift registers, decade counters, computer packaged and potted circuits, delay lines, embedded assemblies and components, square loop ferrite memory cores; computer services / RMSa Ls(500) Se(1951) Ic

C. G. Lloyd, Dept. Gen. Mgr. / E. A. Malling, Dept. Mgr. of Mktg.

GENERAL INSTRUMENT CORP., SEMICONDUCTOR DIVISION & AUTOMATIC MANUFACTURING DIVISION, 65 Gouverneur St., Newark 4, N.J. / HUmboldt 5-2100 / *C 59

Semiconductor division: silicon rectifiers, germanium and silicon diodes; automatic manufacturing division: I. F. transformers / RMSa Ls(5400) Le(1923) Ic

M. Friedman, Gen. Mgr. / J. P. Tucker, Sales Mgr.

General Instrument Corp., F. W. Sickles Div.—see F. W. Sickles Div.

GENERAL KINETICS INCORPORATED, 555 23rd St. South, Arlington 2, Va. / OTis 4-7555 / *C 59

Services in: digital computer programming; programming research; computer test equipment. Programming services for all general purpose computers. Recommendation, design, and construction of automatic-programming-automatic-checking systems to fit specific needs. Mathematical studies; numerical analysis; data-reduction; information retrieval; magnetic tape testers; magnetic tape ultrasonic cleaners; acceptance test equipment / RMCA Ss(20) Se(1954) DIc

A. E. Roberts, Jr., VP / W. L. Anderson, VP.

General Mills, Inc., Mechanical Div., 1620 Central Ave., Minneapolis 13, Minn. / STerling 9-8811 / C 59

APSAC digital computer and digital computer components / RMSa Ls(1600) Me(1940) DIc

General Precision Laboratory Inc., 63 Bedford Rd., Pleasantville, N.Y. / ROgers 9-5000 / *C 59

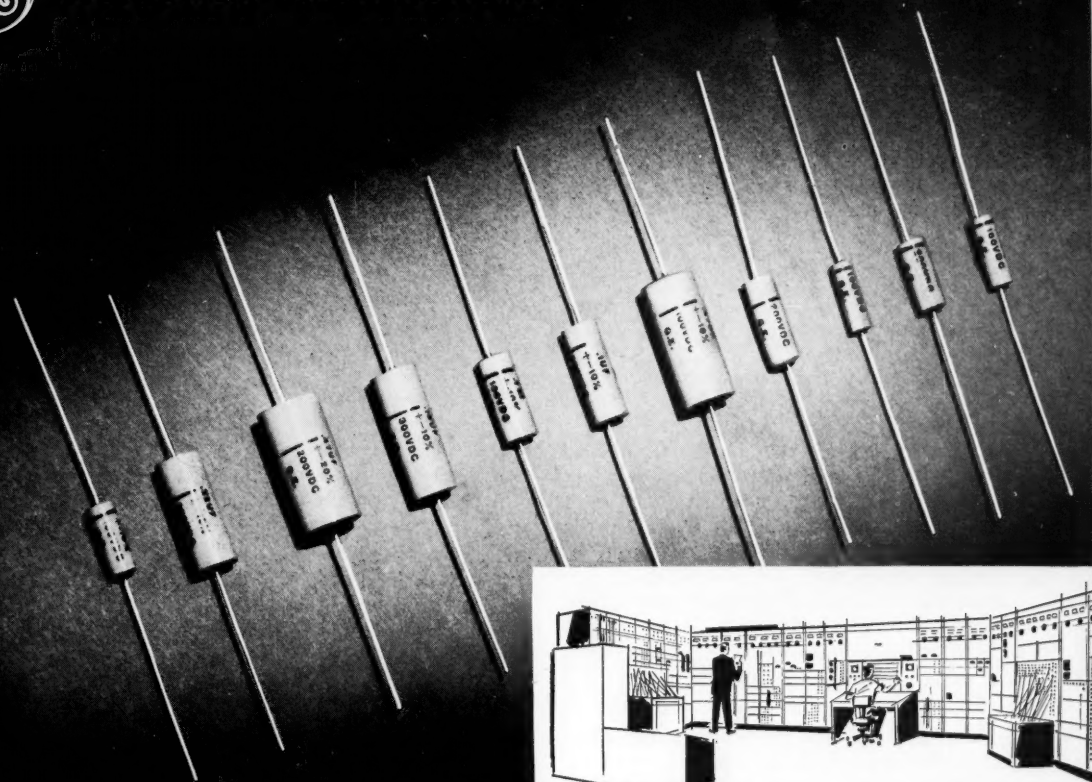
Data processing and display systems (air traffic control) / RMSa Ls(1800) Me(1945) DIc

General Research Co., 603 Jackson St., Falls Church, Va. — no response '58, '59

General Transistor Corp., 91-27 138th Pl., Jamaica 35, N.Y. / HICKory 1-1000 / *C 59



LECTROFILM^{*}-B CAPACITORS



For Computer Applications, General Electric Announces . . .

New Lectrofilm^{*}-B Capacitors With a Design Life of 44,000 Hrs.

Over 3,000,000 unit-hours of life test data in accordance with G-E Specification MTC-3 indicate a probability of survival in excess of 0.99 for 44,000 hour life, under rated voltage at 85 C. At 125 C, indicated probability of survival is in excess of 0.98 . . . and low unit cost means the highest order of reliability per dollar invested.

LOW FAILURE RATE AND LONG LIFE of these inexpensive G-E capacitors result from using only the highest quality materials and the closest of process controls . . . units are precision wound with high-purity aluminum foil and capacitor-grade Mylar[†] film dielectric. No solder is used, and introduction of contaminants through impregnation is eliminated.

SMALL, LIGHTWEIGHT ENCLOSURE consists of tape wrapped around the compact roll and sealed with epoxy resin, forming a rugged case which resists humidity, vibration and shock.

TO MEET YOUR APPLICATION REQUIREMENTS, 14 case sizes are available in five ratings—100-, 200-, 300-, 400-, and 600-volt. Capacitance range within each rating is: 0.015 to 0.68 uf in 100 volts; 0.010 to 0.47 uf in 200 volts; 0.0047 to 0.22 uf in 300 volts; 0.0033 to 0.15 uf in 400 volts; and 0.0010 to 0.10 uf in 600 volts.

GET A QUOTATION TODAY ON NEW LECTROFILM-B CAPACITORS by contacting your General Electric representative. Ask for your copy of life-test data and G-E Specification MTC-3. Or, write to Section 447-5, General Electric Co., Schenectady, N. Y.

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† Registered trade-mark of DuPont Co.

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GENERAL  ELECTRIC

Transistors — germanium and silicon types; precision resistors; germanium diodes, semiconductors, magnetic reading and recording heads / RMSa Ls (525) Se(1954) Ic
 Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif. / GR 9-4331 / *C 59
 Low-level data sampling switches and transducers / RMSa Ms(250) Me(1946) Ic
 Georgia Institute of Technology, Rich Electronic Computer Center, Engineering Experiment Station, Atlanta 13, Ga. / TR 4-6331 / *C 59
 Computing service: Univac Scientific (ERA 1101), Burroughs 220, IBM 650, analog / RCPa Ss(21) Se (1955) DAC
 The Geotechnical Corp., 3401 Shiloh Rd., Garland, Tex. / BR 8-8102 / *C 59
 7-channel analog data transmission systems for remote recording, computing, simulating, or control; FM voltage-controlled subcarrier oscillators; FM subcarrier frequency discriminators; millimicrovolt amplifiers; long-term data drum recorders; self-developing oscillographs; 90-second period to 50 cps recording galvanometers; earthquake seismograph apparatus; seismic noise survey and calibration services; geophysical and seismological consultation; fully-automatic chart reader (curve follower) / RMSa Ms(200) Me(1936) DAIC
 The Gerber Scientific Instrument Co., 163 State St., Hartford, Conn. — no response '58, '59
 G. M. Giannini & Co., Datex Div. — see Datex Corp.
 Gille Associates, Inc., 956 Maccabees Bldg., Detroit 2, Mich. / Te 3-3454 / *C 58
 Publishers of "The Punched Card Machine Accounting and Data Processing Semi-Annual" / MSa Ss (8) Se(1951) Ic
 Gilmore Industries, Inc., 13015 Woodland Ave., Cleveland 20, Ohio / RA 1-6400 / *C 59
 Electronic control and data handling equipment; scanners, analog to digital converters, force instrumentation, transducer instrumentation, card to magnetic tape and paper tape converters, automatic controls and equipment / RMSa Ms(50) Se(1950) DICc
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio / REpublic 3-6361 / *C 58
 Large scale digitally controlled analog computers. Special purpose computers. Control and data processing devices using AC or DC analog or digital computing techniques. Goodyear electronic differential analyzers (GEDA) / RMSa Ls(10,000) Le(1925) DACc
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif. / POplar 6-3725 / *C 59
 Data recording, processing, and reduction equipment; cameras; counters; fire control equipment; geophysical apparatus; punch card machines and readers / RMSa Ms(147) Me(1945) Ic
 GPE Controls, Inc., 240 E. Ontario St., Chicago 11, Ill. / WHitehall 4-3700 / *C 59
 Analog and digital process control computers with electrohydraulic control systems / RMSa Ms(400) Me(1931) DAIC
 GPS Instrument Co., Inc., 180 Needham St., Newton 64, Mass. / *C 59

Electronic analog & statistical computer; special computing devices for data reduction / RMSa Ss(25) ?e AIC
 Guardian Electric Manufacturing Company, 1621 W. Walnut St., Chicago 12, Ill. / CHesapeake 3-1100 / *C 58
 Electro-magnetic controls, complete control systems, components for computers; relays, solenoids, switches, stepping relays, hermetically sealed elements, etc. / RMSa Ls(1000) Se(1957) Ic
 Gudeman Co., Dilectron Div. — see Dilectron Div., Gudeman Co.
 Gudeman Co. of Calif., 9200 Exposition Blvd., Los Angeles 34, Calif. — moved, address not known.
 Gulton Industries, Inc., 212 Durham Ave., Metuchen, N.J. / Liberty 8-2800 / *C 59
 Electronic and electro-mechanical components, instruments, and systems. Magnetic amplifiers, capacitors, printed circuits, resistant coatings, coils, connectors, consulting services, automatic controls, delay lines, memory systems, regulated power supplies, magnetic tape recorders, telemetering systems, transformers, ultrasonic medical equipment / RMSa Ls(700) Me(1942) ICc

H

Hallmore Electronics Co., Div. of The Siegler Corp., 714 No. Brookhurst Ave., Anaheim, Calif. / PROspect 4-1010 / *C 59
 Instrumentation and telemetering, airborne control, automatic ground support and test, and closed circuit television systems / RMSa Ls(750) Se(1951) Ic
HALLER, RAYMOND, AND BROWN, INC., DIVISION OF SINGER MFG. CO., Science Park, State College, Pa. / ADam 7-7611 / also 149 Broadway, New York 6, N.Y. / *C 59
 Data processing consulting; custom inventory control systems; special purpose analog and digital computers / RMSa Ms(475) Se(1947) DAC
 Dr. J. L. McClucas, Pres. / L. D. Rexroat, Head Contracts Dept.
 Hall-Scott, Inc., 2950 Ontario St., Burbank, Calif. / VI 9-2341 / *C 57
 Analog computers and components / RMSa Ms (250) Le Ac
 Hammarlund Mfg. Company, Inc., 460 West 34th St., New York 1, N.Y. / LOngacre 5-1300 / *C 58
 Centralized operations control equipment. Audio tone signalling, pulse counting, pulse width selection, alarm systems, telemetering systems. Capacitors. Complete systems installation / RMSa Ms (350) Le(1910) ICc
 Harrison Laboratories, Inc., 45 Industrial Rd., Berkeley Heights, N.J. / CRestview 3-9123 / *C 59
 Transistorized power supplies / RMSa Ss(33) Se (1954) Ic
 Harvard University, Harvard Computation Laboratory, Cambridge 38, Mass. / *C 57
 Builder of Harvard Mark I, II, III, IV calculators for Navy, Air Force, and own use. Computing service: digital; Harvard Mark I and IV, and Univac I machines / RCPMa Ms Me(1941) Dc
HARVEY-WELLS ELECTRONICS, INC., RESEARCH

AND DEVELOPMENT DIV., 5168 Washington St., W. Roxbury 32, Mass. / FAirview 7-8000 / *C 59
5 megacycle, high speed digital logic building blocks, decade scalars, shift registers, counters and power supplies / RMSCa Ms(35) Me(1940) DCc
R. A. Mahler, Pres. / A. C. Westborn, R & D Director

Cecil Hastings, Jr., 136 Kuuala St., Kailua, Hawaii / Kai 251528 / *C 58

Approximations for digital computers / RCPa Ss Se(1954) Dc

HATHAWAY INSTRUMENT CO. (subsidiary of Hamilton Watch Co.), 1315 So. Clarkson St., Denver 10, Colo. / Spruce 7-2696 / *C 59

Transducers, analog and digital recorders, oscillographs, circuit analysis, etc. / RCMSa Ms(80) Me(1939) Ic

The A. W. Haydon Co., 232 N. Elm St., Waterbury 20, Conn. / PL 6-4481 / *C 59

AC and DC timing motors, custom designed timing devices, elapsed time indicators, electronic timers, time delay relays, intervalometers, repeat cycle timers, stop clocks, subminiature timers. Automatic controls, Tachometers / RMSa Ms(425) Me(1946) ICc

Heath Co., Benton Harbor, Mich.

Assemble electronic analog computer kit / RMSa DAIC

Helipot Division of Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif. / TROjan 1-4848 / *C 59

Precision potentiometers, single-and-multiturn, linear and non-linear; rotating components, monitoring and control components, standard electromechanical breadboard parts; turns-counting dials; magnetic clutches; delay lines; silicon diodes; synchros / RMSa Ls(1000) Me(1943) Ic

Hewlett-Packard Company, 275 Page Mill Rd., Palo Alto, Calif. / DAvenport 5-4451 / *C 59

AC and pulse amplifiers, oscilloscopes, cameras, computer test equipment, digital voltmeters, electronic frequency and pulse counters, digital recorders with analog output, digital recorders with 10-line input, electronic function generators, pulse generators, digital delay generators, DC regulated power supplies, tachometer transducers and indicators / RMSa Ls Le(1939) DAIC

Hillburn Electronic Products Co., 55 Nassau Ave., Brooklyn 22, N.Y. / STagg 2-3875 / *C 58

Relays, solenoids, counters, for computer and other uses / RMSa Ms Me(1945) Ic

Hillyer Instrument Co., 54 Lafayette St., New York 13, N.Y. / Digby 9-4485 / *C

Simulators, servomechanisms, sensing, computing, and actuating systems. Automatic machine controls / RMSa Ms(100) Se(1945) DAISCc

Hoffman Electronics Corp., Semiconductor Div., 930 Pitner Ave., Evanston, Ill. / University 9-9850 / *C 58

Diodes, power regulators, power rectifiers, silicon photovoltaic readout cells / RMSa Ls(500) Se(1953) Ic

N. V. Hollandse Signaalapparaten, Zuidelijke Havenweg 40, Hengelo (0), Netherlands / 5850 / *C 59

Automatic weapon control systems, such as integrated naval weapon control systems, providing long range warning, aircraft control, target indication and fire control against air, surface and sub-surface targets; automatic air traffic control system SATCO; air defence systems / RMSa Ls(1800) Le(1922) DAICc

Hoover Electronics Co., 110 W. Timonium Rd., Timonium, Md. / VALley 5-5200 / *C 59

Data processing systems, reversible analog-to-digital converters. Digital computer subassemblies. Sequential test sets. Telemetry systems. Logical and arithmetical, packaged circuits. Power supplies / RMSa Ms(100) Se(1952) DAIC

Huck Co., 37 Wall St., New York 5, N.Y. / Digby 4-4750 / *C 56

Card sensing and punching units for computer input-output / RMSCa Ms(125) Me(1945) Dc

Hughes Aircraft Co., Semiconductor Div., 500 Superior Ave., Newport Beach, Calif. / LIBerty 8-0671 / *C 59

Transistors, diodes, rectifiers, avalanche diodes / RMSa Ls(2000) Se(1953) Ic

Hughes Research and Development Laboratories, Hughes Aircraft Co., Culver City, Calif. / EXmont 8-2711 / *C 58

Automatic data-handling systems for commercial and military applications. Industrial control systems. Small, automatic, electronic digital and analog computers for airborne use. Fire-control equipment. Aircraft control. Guided missiles. Digital controls; semiconductor devices; magnetic cards; automatic control equipment; diodes; data processing machinery; rectifiers; transistors / RMSa Ls(15,000 company; 5,000 Res. and Devt. Labs.; 400 computers) Me(1937) DACc

Hycon Eastern, Inc., 75 Cambridge Parkway, Cambridge 45, Mass. / UN 4-7200 / *C 59

Digital (special purpose) magnetic tape search, language format converters / RMSa Ms(200) Se(1955) Ic

HYDRO MOLDING CO., INC., 100 Sharron Ave., Plattsburgh, N.Y. / 2598 / *C 59

Precision molded bobbins, screws and custom molded components; complete engineering and tool room facilities / RMSa Ms(90) Se(1949) Ic
S. Levites, Sales / William E. Hoffmann, Engineering

I

I.D.E.A., Inc. — see Industrial Development Engineering Association, Inc.

Imperial College, Mathematics Dept., Computer Section, Huxley Bldg., Exhibition Road, So. Kensington, London, England

Automatic digital computers constructed and in operation / RMa Ss Le(1922) Dc

Imtra Corp., 11 University Rd., Cambridge 38, Mass. / UNiversity 4-4350 / *C 59

Magnetic storage drums, importer / Ba Ss(2) Se(1952) Ic

The Indiana Steel Products Co., 405 Elm St., Valparaiso, Ind. / 2-5601 / *C 59

Permanent magnets / RMSCa Ls(800) Le(1908) Ic

Industrial Control Co., 805 Albin Ave., L.I., N.Y. / MOhawk 1-6060 / *C 58

Servo amplifiers, servo multipliers, automatic controls and instrumentation / RMSa Ss(15) ?e C1c

Industrial Development Engineering Association, Inc., (I.D.E.A.) 7900 Pendleton Pike, Indianapolis 26, Ind. / Liberty 7-3581 / *C 59

Components; readouts, digital and alpha-numeric / RMSa Ms(200) Me(1945) D1c

Industrial Nucleonics Corporation, 650 Ackerman Rd., Columbus 14, Ohio / Amherst 7-6351 / *C 59

"AccuRay" process control systems / RMSa Me (400) Se(1950) Cc

Industro Transistor Corp., 35-10 36th Ave., Long Island City 6, N.Y. / EXeter 2-8000 / *C 59

Germanium transistors for computer applications / RMSa Ms(100) Se(1957) 1c

Information Systems, Inc., 7350 Ridgeway Ave., Skokie, Illinois / ORchard 5-2500 / *C 59

Information and control systems; consulting and engineering; data processing digital computer; recording & scanning equipment / SCPa Ss(35) Se (1959) DCc

Institut Blaise Pascal, Laboratoire de Calcul Numérique, 25, Avenue de la Division Leclerc, Chatillon-sous-Bagneux (Seine), France / *C 59

Computing center using Elliott 402E, IBM 650, Bull Gamma — AET / RCPa Ss(25) Se(1957) Dc

Institute for Advanced Study, Electronic Computer Project, Princeton, N.J. — no longer active

The Institute of Management Sciences, 250 North Street, White Plains, N.Y. / *C 59

Non-profit membership organization, publishers of quarterly journal "Management Science" / PCa ?s Se(1954) 1c

Instrument Development Laboratories, Inc., 67 Mechanic St., Attleboro, Mass. / Attleboro 1-3880 / *C 59

Digital converters, shaft angle; sampling switches, high speed; computers — analog, color. Research, development, production of precision components to customer order / RMSa Me(215) Me(1947) DA1c

Instrument Society of America, 313 Sixth Ave., Pittsburgh 22, Pa. / ATlantic 1-3171 / *C 59

Professional and technical society serving the field of instrumentation systems and automatic control. Publishes "ISA Journal" / PCa Ss(30) Me(1946)

Intelligent Machines Research Corp., 719 Edsall Rd., Alexandria, Va. / FL 4-5000 / *C 58

Automatic character sensing (reading) equipment, pattern interpretation equipment, sensing mechanisms, digital computer elements / RMSa Ms(50) Se(1950) D1c

Intercontinental Dynamics Corp., 170 Coolidge Ave., Englewood, N.J. / LOwell 7-3600 / *C 59

Random noise electronic generator / RMSa Ss(45) Se(1956) 1c

INTERNATIONAL BUSINESS MACHINES CORP., 590 Madison Ave., New York 22, N.Y. / Plaza 3-1900 / *C 59

Punch card machines. IBM 650, magnetic drum computer. IBM 704, 705, and 709, automatic electronic computers with magnetic tape and magnetic

core storage. IBM 632, electronic typing calculator. IBM 610, automatic decimal point computer. Electronic calculating punches 604 and 607. Accounting machines and data processing equipment, etc. / RMSa Ls(84,000) Le(1911) 1c

INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIV., 112 East Post Road, White Plains, N.Y. / White Plains 9-1900 / *C 59

Automatic data processing machines; punch card machines, and accounting machines. IBM 650, magnetic drum computer. IBM 704, 705, and 709, automatic electronic computers with magnetic tape and magnetic core storage. IBM 632, electronic typing calculator. IBM 610, automatic decimal point computer. Electronic calculating punches, 604 and 607 / RMSa Ls(84,000) Le(1911) 1c

International Computers and Tabulators, Ltd. (formerly The British Tabulating Machine Co., Ltd., and Powers-Samas Accounting Machines, Ltd.), 17 Park Lane, London, W. 1, England / Hyde Park 8155 / *C 59

Punched card equipment and electronic digital computers, card to paper tape converters, paper tape to card converters, data processing and recording equipment, magnetic drums, input-output devices, memory systems, office machines, line-a-time and high speed printers, magnetic card paper tape and punch card readers, magnetic tape filing systems, readers, and recorders, paper tape / RMSCa Ls (16,000) Le(1908) DISc

International Rectifier Corp., 1521 E. Grand Ave., El Segundo, Calif. / OREGon 8-6281 / *C 59

Rectifiers and diodes, selenium, silicon and germanium; references, regulators, limiters for aircraft computers, analog-digital converters, data processing and digital computers / RMSa Ls(650) Ss (1947) DA1c

International Resistance Co., Computer Components Division, 401 N. Broad St., Philadelphia 8, Pa. / WALnut 2-2166 / *C 59

Pulse viewing resistor probes, pressure and displacement transducers, encapsulated voltage divider networks, encapsulated demodulator network / RMSa Ls(600) Le(1925) 1c

International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif. / GRANite 8-7751 / *C 57

Systems and devices for clerical and control applications. Automatic document-handling machinery. High-density photographic information storage. Community TV system equipment; pay-as-you-see TV. SEE also Telemeter Magnetics Inc. / RMSCa Ms(100) Se(1950) DCc

International Telephone and Telegraph Corp., 67 Broad St., New York 4, N.Y. / Bowling Green 9-3800 / *C 59
Equipment for automatic control of repetitive processes, clerical or industrial work, such as inventories. Fully automatic pneumatic tube system, bidialing / RMSCPa Ls(96,000) Le DASCMc

J

Bill Jack Scientific Instrument Co., 143 Cedros Ave Solana Beach, Calif. — no response '58, '59

Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda 14, Md. — no response '58, '59

ulator. Elec- count- etc. /

CORP., Road, C 59 h card D, mag- D, auto- type and typing- nt com- and 607

ormerly d Pow- k Lane, *C 59 tal com- per tape e recording devices, me and ape and systems. MSCa Ls Ave., El and ger- aircraft proces- (650) S

ponents 8, Pa. / and dis- e divider twork / Kay Ave., Los 7 l applica- machinery, storage as-you-see / RMSCa 67 Broad 3800 / *C tive proc- as inven- system, by Mc

ros Ave 9 Bethesd

June, 1959

Jefferson Electric Co., 910 S. 25th Ave., Bellwood, Ill. / MAnsfield 6-7161 / *C 59
Constant voltage and low voltage control trans-
formers / Ma Ls(1600) Le(1915) Ic

Jefferson Electronic Products Corp., 322 State St., Santa
Barbara, Calif. / WOODland 5-8505 / *C 58
Molded cables and braided wiring harness assem-
blies; electronic, electrical, electromechanical, pre-
cision assemblies and specialized test equipment;
plug-in circuits, regulated power supplies, tele-
metering systems / RMSa Ms(200) Se(1953) Ic

Jet Propulsion Laboratory, California Institute of Tech-
nology, 4800 Oak Grove Drive, Pasadena 3, Calif. /
*C
Analog, digital, and data-handling systems. Re-
search and development in jet propulsion and mis-
sile guidance / RCPa Ls(1,200; about 50 on com-
puters) Me(1942) DAC

Johnson Electronics Inc., Highway 17-92, P.O. Box
1675, Casselberry, Fla. / Midway 4-3311 / *C 59
Precision electronic components in the coil field;
development, design, prototypes; magnetic ampli-
fiers, embedded assemblies and components /
RMSCa Ms(80) Se(1951) Ic

JONKERS BUSINESS MACHINES, INC., 3939 Lega-
tion St., N.W., Washington 15, D.C. / WOODley
6-9019 / *C 59
Development and systems engineering of informa-
tion retrieval systems and engineering data control
systems. Manufacture and sales of "TERMATREX"
search systems / RMSCa Ss Se Ic
Frederick Jonkers, Pres.

K

Kaiser Metal Products, Inc., Briston, Pa. / Stillwell
8-3361 / *C
Digital delay generators for accurate measurement
and generation of time intervals, etc. Automatic
electronic controls for industrial applications /
RMSa Ls(3,500) Le(1920) Ic

Kay Electric Co., Maple Ave., Pine Brook, N.J. / CA
6-4000 / *C 59
Spectrum analyzers, sound spectographs, sweeping
oscillators, plug-in circuits, test equipment, con-
verters, generators, translating equipment, noise
generators / RMSCa Ms(100) Me(1942) Ic

Kaye Development Co., Connecticut Ave., S. Norwalk,
Conn. — no response '58, '59

KCS Limited, 20 Spadina Rd., Toronto 4, Ont., Canada
/ WALnut 4-3381 / *C 59
Management and technical consultants: electronic
computing, data processing, operations research,
economic surveys, statistical analyses, feasibility
studies. Services: high speed computing, data
processing, tabulating / RCPa Ss(45) Se(1954) Dc

Kearfott Co., Inc., Clifton, N.J. / Gregory 2-1000 / *C
Analog-digital converter; digital-analog converter;
servo motors, synchros, resolvers, integrating tach-
ometer generators; analog and digital computers /
RMSa Ls(3000) Le(1916) DAISc

George F. Kelk, Ltd., 130 Willowdale Ave., Willowdale,
Ontario, Canada / BA 5-7724 / *C 58
Custom design of analog or digital data handling

$$\int_V (\nabla T)^2 dv = \int_S T (\nabla T \cdot n) ds$$



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Boeing Airplane Company
P.O. Box 3822 - CMB
Seattle 24, Washington

BOEING

- systems. Custom test and process control equipment / MCA Ss(12) Se(1953) DAC
- Kellogg Switchboard & Supply Co., 6650 So. Cicero Ave., Chicago 38, Ill. / PO 7-6900 / *C 58
Wire transmission equipment, telephone switching equipment, digital computing equipment, radio multiplexing equipment / RMSa Ls(4000) Le (1897) DIC
- Kelvin Electric Co., 5907 Noble Ave., Van Nuys, Calif. / State 2-6662 / *C 58
Precision wire-wound resistors / RMSa Ss(31) Se (1957) Ic
- Kemtron Electron Products, Inc., 14 Prince Place, Newburyport, Mass. / HO 2-4464 / *C 59
Semiconductor devices, components / RMSa Ms Se(1948) Ic
- Kepco, Inc., 131-38 Sanford Ave., Flushing 55, N.Y. / IN 1-7000 / *C 59
Power supplies, voltage or current regulated; magnetic, transistorized, and vacuum tube types / RMSa Ms(100) Me(1946) Ic
- Ketay Dept., United Aircraft Corp., Jericho Turnpike, Commack, L.I., N.Y. / FOrEst 8-5500 / *C 59
Servomechanism components and gyromechanisms / RMSa Ls Me(1946) Sc
- Key Electric Corp., 287 Post Ave., Westbury, N.Y. — no response '58, '59
- Walter Kidde & Co., Inc., 441 Main Street, Belleville 9, N.J. / PLymouth 9-5000 / *C 59
Fire detecting and extinguishing equipment, special machine tool and factory automation / RMSa Ls(1460) Le(1917) ICMc
- Kidde Ultrasonic & Detection Alarms, Inc., 441 Brighton Rd., Allwood Station, Clifton, N.J. / GReg-ory 2-5000 / *C 59
Automatic fire detection systems; ultrasonic, photoelectric, and capacitance burglar alarm systems; temperature monitoring systems / RMSCa ?s Le (1917) ISCC
- A. Kimball Co., subsidiary of United Shoe Machinery Corp., Rewe St., Brooklyn 11, N.Y. / STag 2-2701 / *C 58
Machine for printing and punching garment tags, and other print-punch machines, reading devices, and input mechanisms / RMSCa Ms(439) Le(1876) Ic
- Kleinschmidt, Inc., Deerfield, Ill. / Deerfield 1000 / *C
Page printing read-out devices, tape reading and tape punching equipment / RMSCa Ls(650) Se (1946) Ic
- The Walter S. Kraus Co., 48-02 43 St., Woodside 77, N.Y. / STillwell 4-5922 / *C 58
Electronic controls for addressing machines, exact spacing controls / RMSa Ss(12) Se(1956, this div.) Ic
- The Kybernetes Corp., Division of Self-Winding Clock Co., 75 Varick St., New York 13, N.Y. / CAnal 6-6800 / *C 58
Automatic industrial data processing, digital print-out and digital indicator systems. Temperature (thermocouple) indicator monitors with annunciation / RMSa Ms(200) Le(1885, parent company) DICc
- L**
- Laboratory For Electronics, Inc., Computer Products Div., 1079 Commonwealth Ave., Boston 15, Mass. / ALgonquin 4-4235 / *C 59
HD (high density) file, magnetic drums and heads, magnetic bulk storage device for use with data processing or computer systems. SM symbol generator and viewer. Special digital systems designed to customer requirements. Advanced research in special devices and applied physics for the computer field. Computer components. Data processing and recording equipment. Digital computers. Information retrieval devices; photoelectric readers, printers, visual output devices / RMSa Ls(890) Me (1946) DMIC
- LANDIS & GYR, INC., 45 W. 45th St., New York 36, N.Y. / JUDson 6-4644 / *C 59
Impulse counters, predetermining impulse counters, single decade impulse counters with auxiliary contacts / RMSa Ss(13 this company, over 9,000 in associated companies) Le(1926) Ic
O. H. Schlueter, Pres. / M. U. Wiesendanger, Exec. V. P.
- Lanston Industries, Inc., 24th at Locust, Philadelphia 3, Pa. / LO 7-4614 / *C 58
Barrett adding machines: 10 key adding machines with direct subtraction, visible dials, printed tape / RMSa Ms(400) Le(1892) Lc
- Lapp Insulator Co. Inc., Radio Specialties Div., 130 Sumner St., LeRoy, N.Y. — no response '58, '59
- Leeds & Northrup Co., 4907 Stenton Ave., Philadelphia 44, Pa. / DAVenport 9-4900 / *C 59
Analog computers for electric power industry, recorders and indicators, transducers, data handling systems, systems engineering / RMSa Ls(2900) Le(1898) AICc
- Lehigh University, Computing Laboratory, Packard Laboratory, Bethlehem, Pa. / UN 7-5071 ext. 355 / *C 59
Computing service using LGP-30 / RCP (training) a Ss(7) Se(1957) Dc
- Leonard Electronic Products Co., Inc., 67-34 St., Brooklyn 32, N.Y. — no response '58, '59
- Harry Levinson Co., 1117 2nd Ave., Seattle, Wash. / Main 2-5433 / *C 58
Analog computers / Sa Ss(2) Se(1954) Ac
- Lewyt Mfg. Corp., Long Island City 1, N.Y. / EX 2-5050 / *C 59
Special purpose computing systems (analog and digital) for industry and military; digital display systems, amplifiers, automatic controls and equipment; integrators, correlators, electronic counters, multipliers; information converters of all types; inventory and magnetic storage systems; shift registers; character readers; cooling devices for memory cores and electronic components / RMSa ?s ?e DAIC
- LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. / CITrus 4-6541 / *C 59
Digital and analog, general and special purpose computers; computer components, data processing systems, memory systems, etc., Libratrol-500 industrial control computer, LGP-30 business & scientific computer / RMSa Ls(2000) Me(1937) DAIC
- LIBRASCOPE, INC., COMMERCIAL DIVISION, 100

East Tujunga Ave., Burbank, Calif. / Victoria 9-6061 / *C 59

General purpose digital computers, industrial process control computers, shaft-to-digital encoders, magnetic drum memory systems, magnetic drums, read-record heads and amplifiers, X-Y plotters, punched card/punched tape-to-plotter converters, mechanical sine wave generator, mechanical integrators, differentials, and sine-cosine mechanisms, miniature servos and servo amplifiers / RMSa Ms (250) Me(1946) Dlc

LINK AVIATION, INC., Binghamton, N.Y. / 3-9311 / *C 59

Flight simulators, analog computers, digital computers, digital/analog components and systems, servo-mechanisms, gear boxes, test equipment / RMSCa Ls(3000) Me(1934) DAISCc

F. K. English, District Mgr. (West Coast, Hollywood, Calif.) / J. R. Ritchie, Industrial Sales Mgr.

Edwin A. Lipps Engineering, 1511 Colorado Ave., Santa Monica, Calif. / EXbrook 3-0449 / *C 59

Micro-magnetic instruments; magnetic tape recording and reading heads; consulting services; memory systems; magnetic tape readers / RMSCa Ss (15) Se(1948) Ic

Arthur D. Little, Inc., 15 Acorn Park, Cambridge 40, Mass. / UNiversity 4-5770 / *C 58

Industrial research consultants in all fields of physical sciences, engineering, technical economics, management services. Complete computing and data processing services, mathematical analysis and programming for digital computers, operations research, systems engineering / RCPa Ls(1000) Le (1886) Dlc

Littelfuse, Inc., 1865 Miner St., Des Plaines, Ill. / VAnderbilt 4-1188 / *C 59

Fuses, fuse holders, microfuses for printed circuit boards / RMSa Ms(450) Le(1927) Ic

Litton Industries, Components Div., 5873 Rodeo Rd., Los Angeles 16, Calif. / VE 7-1228 / *C 58

Precision components, potentiometers, delay lines. Electronic hardware, terminals and boards, hardware, printed circuits / RMSa Ms(150) Se(1955) Ic

Litton Industries, Inc., 336 N. Foothill Rd., Beverly Hills, Calif. / CR 4-7411 / *C 58

Radar systems with monopulse techniques; countermeasures, inertial navigation, automatic flight control, telemetering devices, communication equipment, instrumentation and test equipment, servo-mechanisms. Portable, electronic scientific computers (digital differential analyzer). Accessories: graph plotters, followers, tape input and output devices, digital-analog converters, and magnetic drums and heads. Advanced system design and development. Adding machines / RMSa Ls(8500) Se (1953) DAICc

Logabax S. A., 146, Champs Elysées, Paris 7, France / Elysée 61-64 / *C 59

198 and 207-register automatic accounting machines; several hundred headings analysing equipment "TELEBAX." Automatic connection with punch card or computing machines / RMSa Ls (700) Se(1949) Dc

Loyola Laboratories, Box 90074, Airport Station, Los Angeles 45, Calif. / ORegon 8-1686 / *C 59

THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959



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Broadview Research Corporation
1811 Trousdale Drive
Burlingame, California

Computers, computing services, consulting / RCa Ss(2) Se(1956) Ic

M

Machine Statistics Co., 180 Varick St., New York 16, N.Y. — out of business

Mack Electronics, a Div. of Mack Trucks, Inc. — Discontinued. Former personnel, facilities and product line now doing business as DI/AN Controls, Inc., which see

MacLeod and Hanopol Inc., 10 Roland St., Charlestown 29, Mass. — no response '58, '59

The Magnavox Co., 2131 Bueter Rd., Fort Wayne 4, Indiana

Analog-to-digital converters; analog and digital computers; data processing equipment; magnetic drums / RMSa Ls DAIC

Magnetic Metals Co., Hayes Ave. at 21st St., Camden 1, N.J. / WOODlawn 4-7842 / *C 58

Electro magnetic core parts and shields / RMSa Ms(400) Me(1942) Ic

Magnetic Research Corp., 3160 W. El Segundo Blvd., Hawthorne, Calif. / OSborne 5-1171 / *C 59

Components / RMSa Ms(158) Se(1952) ICc

Magnetics, Inc., Box 230, Butler, Pa. / Butler 7-1745 / *C 59

Tape wound cores of ultra-thin high-permeability materials, for computers, etc. / RMSa Ms(300) Se (1949) Ic

Magnetics Research Co., Inc., 255 Grove St., White Plains, N.Y. / WH 9-9588 / *C 58

- Magnetic components for analog and digital systems and computers. Transistor driven magnetically controlled counters, matrix plane switch cores, custom manufactured magnetic digital devices, toroidal windings, computer sub-assemblies and sub-systems, magnetically operated high speed scalars, magnetic amplifiers / RMSCa Ss(30) Se (1951) DAIC
- P. R. Mallory & Co., Inc., 40 S. Gray St., Indianapolis 6, Ind. / MELrose 6-5353 / *C 58
Silicon diodes, rectifiers, resistors, rheostats, capacitors, switches, semiconductors, potentiometers, for computer and other uses / RMSCa Ls(4000) Le(1916) Ic
- Alan O. Mann & Associates — dissolved
Marchant Calculators, Div. of Smith-Corona Marchant Inc., 6701 San Pablo Ave., Oakland 8, Calif. / *C 59
Automatic electric calculators (desk type) / RMSa Ls(2500) Le(1910) Ic
- Markite Corporation, 155 Waverly Pl., New York 14, N.Y. / OREGon 5-1384 / *C 59
Rotary and rectilinear precision potentiometers for computers and servo controls / RMSa Ms(250) Se(1951) Ic
- Massachusetts Institute of Technology, Computation Center, 77 Mass. Ave., Cambridge 39, Mass. / UNIVERSITY 4-6900 / *C 59
Computing service using IBM 704 (32,000 word magnetic core memory) and complete line of peripheral equipment / RCPa Ms(80—600 outside programmers) Se(1957) DAC
- Mathematisch Centrum, 2e Boerhaavesstraat 49, Amsterdam, Netherlands / *C
Relay computer; electronic computers; for own use / RCPa Ms(60) Se(1946) Dc
- MAUREY INSTRUMENT CORP., 7924 S. Exchange Ave., Chicago 17, Ill. / REGent 1-1717 / *C 59**
Potentiometers: precision, single-turn, wirewound, linear, non-linear. Rotary switches / RMSa Ss(42) Se(1953) Ic
E. Maurey, Jr., Pres. / Joseph Popp, Sales Mgr.
The W. L. Maxson Corp., 475 Tenth Ave., New York 18, N.Y. / Longacre 5-1900 / and elsewhere / *C 59
Servomechanisms, analog computers, and digital computers for fire control, navigation, etc. Automatic control machinery / RMSa Ls(1320, incl. div.) Me(1935) DASCc
- H. B. MAYNARD & CO., INC., 718 Wallace Ave., Pittsburgh 21, Pa., also other cities in USA and abroad / FREmont 1-9600 / *C 59**
Management consultants. Feasibility studies, operations research, linear programming applications, cost reduction programs, management controls, office work measurement and controls, office methods improvement, training in office methods and systems / RCPa Ms Me(1934) DAICc
- McGraw-Edison Co. — see Thomas A. Edison Instrument Division
Measurement Engineering Ltd., 232 John St., Arnprior, Ontario, Can. / 400 / *C 58
Consultants, development engineers, and equipment specialists in communications, nucleonics, and industrial measurement and control. Automatic sorting and counting controls and equipment, metal chassis, printed circuits, analog-to-digital converters, counters, mechanical integrators, potentiometers, power supplies, simulators, tachometers / RMSCa Ms(120) ?e Ic
- Mechanical Division of General Mills, Inc. — see General Mills
- Mellon Institute of Industrial Research, Multiple Fellowship on Computer Components, University of Pittsburgh, Pittsburgh 13, Pa. / Ma 1-1100 X378 / *C 57
High temperature modular printed circuitry / RCA Ss(5) Se(1950) Dc
- Metron Corp., 8 Coryell St., Lambertville, N.J. / EXPORT 7-1570 / *C 57
Punched card sensing device used in analog and digital computers, other computer components / RMSa Ss(6) Se(1956) DAC
- Micro Instrument Company, 80 Trowbridge St., Cambridge 38, Mass. / KIRkland 7-8660 / *C 59
Toroid transformers, toroid inductors; ferrite core units for computers, etc. / RMSa Ss(20) Me(1934) Ic
- Micro Switch, a Div. of Minneapolis-Honeywell Regulator Co., 11 W. Spring St., Freeport, Ill. / ADams 2-1122 / *C 59
Lighted pushbutton switches, snap-action and mercury switches for use in computers and other business machines / RMSa Ls(2400) Me(1937) Ic
- Microtran Co., Inc., 145 E. Mineola Ave., Valley Stream, N.Y. / LO 1-6050 / *C 59
Miniature audio and transistor transformers. Transformers designed to customer specifications / RMSa Ms(60) Se(1950) Ic
- Mid-Century Instrumatic Corp., 611 Broadway, New York 12, N.Y. / SPring 7-4016 / *C 59
Precision analog computers, function generators, multipliers, resolvers, recorders, X-Y plotters, etc. / RMSa Ms(70) Se(1950) Ac
- Midwest Research Institute, 425 Volker Blvd., Kansas City 10, Mo. / LOGan 1-0202 / *C 59
Studies in application of digital and analog computers to business and scientific problems; mathematical analysis and computation; computing service; consulting service; contract research; economics research; operations research; systems engineering / RCPa Ms(300) Me(1945) Ic
- Miles Reproducer Co., Inc., 812 Broadway, New York 3, N.Y. / SPring 7-7670 / *C 58
Self-powered miniature sound recorder-reproducer. Conference recorders, briefcase recorders-reproducers, telephone recorders-reproducers, permanent recorders (non-magnetic). Controls, automatic and signaling; magnetic drums; magnetic reading and recording heads; memory systems; mechanical readers; magnetic tape recorders; paper tape readers / RMSa Ms(60) Le(1924) Ic
- H. JEFFERSON MILLS, JR., MANAGEMENT CONSULTANT, 2725 29th St., N.W., Washington 8, D.C. / COLUMbia 5-1888 / *C 59**
Management counsel in systems analysis, equipment evaluation, organization and facilities planning; personnel recruitment, selection and training; and installation programs for electronic computer and other automatic data processing systems in business,

industry and government / RCPa Ss Se(1954) DIC
H. Jefferson Mills, Jr., Principal
Minneapolis-Honeywell Regulator Co., Boston Div., 40
Life St., Boston 35, Mass. / AL 4-5200 / *C 59
Linear accelerometers, electronic test equipment,
d-c data handling amplifiers and preamplifiers, d-c
null indicators, precision temperature control units,
and synchros / RMSa Ls(850) Le(1886) SIC
Minneapolis-Honeywell Regulator Co., Davies Labs.,
Division, 10721 Hanna St., Beltsville, Md. / WEBster
5-2700 / *C 59
Magnetic tape products; systems and techniques for
data acquisition, reduction and analysis; recorders
and transcribers of digital data; analog to digital
converters; magnetic reading and recording heads;
magnetic tape readers and recorders / RMSa Ms
(300) Se(1946) DIC
Minneapolis-Honeywell Regulator Co., Florida Inertial
Guidance Center, 13350 U.S. Highway 19, St. Peters-
burg, Fla. / HEmlock 5-1151 / *C 59
Inertial guidance systems, inertial platforms, digi-
tal computers, analog computers, gyros and accel-
erometers, digital computers for aircraft or missiles.
Packaged computer logic circuits; computer ground
checkout and drum loading equipment; analog to
digital converters, drums and memory systems;
input-output devices / RMSa Ls(620) Se(1957)
DAIc
Minneapolis-Honeywell Regulator Co., Industrial Div.,
4580 Wayne Ave., Philadelphia 44, Pa. / DAvenport
9-8300 / *C 59
Automatic controllers. Brown Instruments. Servo
components used in computers. Recording and in-
dicating instruments and control equipment, etc.
Amplifiers, converters, balancing motors, potenti-
ometers, recording papers, load and frequency con-
trol systems, data handling systems with computing
functions, nuclear reactor control systems and sim-
ulators, telemetering and supervisory control sys-
tems / RMSa Ls(3200) Le(1859) ACc
Minnesota Mining and Manufacturing Co., 900 Bush
Ave., St. Paul 6, Minn. / PR 6-8511 / *C 58
Magnetic instrumentation tape / RMSa ?s Le
(1902) Ic
Minute Maid Corporation, Data Processing Div., 1200
E. Colonial Drive, Orlando, Florida / GA 4-2225 /
*C 59
Office system and management services, including
service bureau for converting paper tape to cards
and processing IBM cards / Ca Ss(20) Se(1957) Ic
Monroe Calculating Machine Co., 555 Mitchell St.,
Orange, N.J. / OR 3-6600 / *C 59
Adding machines, desk calculators, automatic elec-
tronic digital computers, data processing machines
and components, magnetic drum storage systems,
tape punch equipment, magnetic read-record heads,
modular drums / RMSa Ls(4100) Le(1911) DIC
Monroe School of Electrical Engineering, Univ. of Penn-
sylvania, 200 So. 33 St., Phila. 4, Pa. / EVergreen
6-0100 / *C 59
Computing service: analog, digital; differential an-
alyzer, automatic digital computer, punch card
machines. Research, development, systems engi-
neering, education, consulting / RCa Ms(80) Le
(1923) DAC

Moran Instrument Corp., 170 E. Orange Grove Blvd.,
Pasadena, Calif. / SY 6-7158 / *C 59
Shaft position digitizers, analog digitizers, reso-
lution multipliers, calibrators, regulated high volt-
age power supply, radiation measurement equip-
ment, radar survey equipment, radar navigation
equipment / RMSCa Ss(20) Se(1949) Ic
F. L. Moseley Co., 409 No. Fair Oaks, Pasadena, Calif.
/ Ryan 1-0208 / *C 59
X-Y recorders (with time base); card and tape
translators; logarithmic amplifiers; digital volt-
meters; curve followers, computer accessories /
RMSa Ms(125) Se(1950) Ic
Motorola Inc., Semiconductor Products Div., 5005 E.
McDowell Rd., Phoenix, Ariz. / BRidge 5-4411 /
*C 59
Computer transistors / RMSa Ls(750) Se(1954) Ic

N

National Analysts, Inc., 1015 Chestnut St., Philadelphia
7, Pa. / Market 7-8109 / *C 57
Data processing and computing services, including
consulting and programming; operations research;
marketing research. Facilities include full line of
punch card equipment, large and medium sized
electronic data processing machines (IBM 705 and
650) RCPa Ms(60) Se Dc
National Bureau of Standards, Applied Mathematics
Division, Washington 25, D.C. / EMerson 2-4040 /
*C 59
Computing service, using IBM 704, for govern-
ment and government contractors only / RPCa
Ms(80) Me(1947) Dc
National Bureau of Standards, Data Processing Systems
Division, Washington 25, D.C. / Emerson 2-4040 /
*C
Digital and analog computers, data processing and
control systems, input-output devices, storage ele-
ments, transistors, diodes, delay lines, etc. (for
government only). Designed, assembled, and main-
tain Seac; designed and assembled Dyseac; designed
several special purpose machines / RMBGa Ms(80)
Se(1946) DAC
The National Cash Register Co., So. Main and K Sts.,
Dayton 9, Ohio / Baldwin 6-1411 / *C 59
NCR 304 electronic data processing systems; elec-
tronic bank posting machines; punched paper tape
and punch card converters; input-output devices;
digital computers; magnetic cores / RMSa Ls
(25,000) Le(1884) DIC
The National Cash Register Co., Electronics Division,
1401 East El Segundo Blvd., Hawthorne, California
/ PLymouth 7-1811 / *C 58
Electronic research and development in the field of
business data processing systems / RCa Ms(225)
Se(1951) Dc
National Co., Inc., 61 Sherman St., Malden 48, Mass. /
DA 2-7940 / *C 58
Communications receivers, components, and sys-
tems; atomic frequency standards, electronic and
frequency multipliers / RMSa Ms(500) Le(1914)
Ic
National Data Processing Corp., Fidelity Union Life
Bldg., Dallas 1, Texas / RIverside 7-4736 / *C 59

Photoelectric or magnetic character recognition. High speed tonal wire transmission. Teletype to magnetic tape converters. Tape and card readers. Portable and stationary digital recorders. Special purpose computers / RMSa Ss(30) Se(1957) DIc
 National Fabricated Products, Inc., 2650 W. Belden Ave., Chicago 47, Ill. — no response '58, '59
 National Moldite Co., 250 South St., Newark 5, N.J. / Mitchell 2-6060 / *C 58
 Powdered iron cores, ferrite cores, iron and ferrite coil forms, toroids, other parts. Phenolic and iron molded coil forms. High frequency ferrites / RMSa Ms(70) Me(1943) Ic
 National Physical Laboratory, Control Mechanisms and Electronics Division, Teddington, Middlesex, England / *C
 Digital computers, electronic simulators, data recording. Designer and builder of the Pilot Model of ACE (Automatic Computing Engine). Collaborates with English Electric Co. / RCPMa Ls(1000; this division, 40) Le(1900) DIc
 National Physical Laboratory, Mathematics Div., Teddington, Middlesex, England / Molesey 1380 / *C 58
 Computing service using Deuce and Ace. Digital and punched card. Unrestricted as to clients / RCPa Ms(60) Me(1945) Dc
 National Union Electric Corp., Electronics Div., Bloomington, Ill. / 7-6041 / *C 59
 Special purpose electron tubes / RMSa Ls(over 500) Le(1922) Ic
 New Haven Clock & Watch Co. — see Condenser Products Div.
 New London Instrument Co., 82 Union St., New London, Conn. / *C 58
 Special purpose analog and digital instruments, digital computers / DAc
 The Newton Co., 55 Elm St., Manchester, Conn. / Mitchell 3-5104 / *C
 Data processing equipment. Analog to digital converters; simulators; automatic typewriters / RMSa Ms(150) Se(1947) DIc
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N.J. / CHestnut 1-1500 / *C 59
 Electronic power supplies / RMSa Ms(150) Se(1955) Ic
 Robert Forbes, Exec. VP / A. Lawrence Karp, Sales Mgr.
NON-LINEAR SYSTEMS, INC., Del Mar Airport, Del Mar, Calif. / SKyline 5-1134 / *C 59
 Digital voltmeters, ohmmeters, ratiometers; oscillogram trace readers, precision wire-wound resistors, electronic measurement instruments for missile, nuclear, scientific and manufacturing fields; digital readouts, data processing and recording equipment, scanners, visual output devices, analog to digital converters / RMSa Ms(150) Se(1952) DIc
 A. F. Kay, Pres. / R. C. Wynne, VP — Sales
 Norden Division, United Aircraft Corp., 58 Commerce Rd., Stamford, Conn. / Davis 5-2611 / *C 59
 Digital and analog computers, synchros, potentiometers, servos, tachometers / RMSa Ls(2200) Se(1958) DASCc
 Norden-Ketay Corp. — see Ketay Dept. and Norden Division

North American Research & Control Instruments Div. — see Phillips Electronics, Inc., Instruments Div.
NORTH ELECTRIC COMPANY, 553 S. Market St., Galion, Ohio / HO 8-2420 / *C 59
 Data processing and computer systems, automatic controls, switching centrals and related components, switches, relays / RMSCa Ls(1500) Le(1884) Ic
 William Tucker, Pres. / W. W. Crissinger, Mgr., Industrial Div.
 Northam Electronics, Inc., 2420 N. Lake Ave., Altadena, Calif. / SYcamore 8-1145 / *C 58
 Pressure transducers, accelerometers, miniature magnetic tape recorders; data reduction, processing and recording equipment; demodulators, power frequency converters; regulated power supplies / RMSa Ms(64) Se(1951) Ic
 Northrop Aircraft, Inc., Dept. 3330, Hawthorne, Calif. / OR 8-9111, Ext. 424 / *C 57
 Digital and analog computers, conversion equipment, data reading and reduction components and systems, reconnaissance data handling; develops, maintains, operates own computing and data handling equipment / RMCPa Ms(95 this project) Se(1950 this project) DAC
NORTON ASSOCIATES, INC., P.O. Box 96, Garden City, N.Y. / IVanhoe 3-2968 / *C 59
 Magnetic reading and recording heads, memory systems, magnetic drums, digital computing services, design services in instrumentation and applications. Design and manufacture of standard and special magnetic record, playback, and erase heads in single and multi-track arrangements for magnetic tape, film, wire, drum and magnetic ink character recognition / RMSa Ic
 R. S. Norton, Ch. Eng.
 Notifier Corp., 239 S. 11th St., Lincoln 8, Neb. / 5-2946 / *C 58
 Manual and automatic fire detection systems, sprinkler supervisory systems, municipal fire alarms, plant security systems, automatic and signaling controls and equipment; data recording cameras and equipment, logical circuits / RMSa Ss(40) Se(1949) ICc
 Nuclear Development Corporation of America, 5 New St., White Plains, N.Y. / White Plains 8-5800 / *C 57
 Special purpose data-handling systems. Programming. Operate own "Datatron" providing computing services. Automatic control and materials handling machinery / RMSCa Ms(350) Se(1948) DCMc

O

 Ohmite Manufacturing Co., 3692 Howard St., Skokie, Ill. / ORchard 5-2600
 Capacitors, computer types; miniature wire-wound resistors; etc. / RMSa Ic
OLIVETTI CORP. OF AMERICA, 375 Park Ave., New York 22, N.Y. / PLaza 1-5333 / and Ing. C. Olivetti & Co., S. P. A., Ivrea, Italy / *C 59
 Single and duplex register adding machines. Single and dual register printing calculators / RMSa Ls(24,000) Le(1908) Dc
 Dino Olivetti, Pres. / Guido Lorenzotti, V. P.

Opad Electric Co., 43 Walker St., New York 13, N.Y. / Worth 6-0380 / *C 59

AC & DC power supplies, voltage and current regulators, specialized test equipment, automatic controls; sorting and counting controls; power frequency electrical converters; rectifiers / RMSa Ss Me(1947) ICc

Orradio Industries, Shamrock Circle, Opelika, Alabama / Sherwood 5-4621 / *C 57

Instrumentation tape; computers; telemetering recorders / RMSa Ms(100) Se(1949) IC

Ortho Filter Corp., 196 Albion Ave., Paterson 2, N.J. / Mulberry 4-5858 / *C

Pluggable units for computers, cathode ray amplifiers, power supplies, wiring of complete racks, toroids, etc. / RMSa Ss(43) Se(1946) IC

John Oster Mfg. Co., Avionic Div., One Main St., Racine, Wisc. / MELrose 7-4445 / *C 59

Servos, synchros, resolvers, DC motors, servomechanisms, servo torque units, motor-tachometers, computers, indicators / RMSa Ls(1000) Le(1924) IC

Otis Elevator Co., Defense & Industrial Div., 35 Ryerson St., Brooklyn 5, N.Y. / ULster 5-6800 / *C 59

Analog computers; peripheral equipment / RMSa Ms(450) Le(1853) AIC

Owen Laboratories, Inc., 55 Beacon Pl., Pasadena, Calif. / RYan 1-6901 / *C 59

Industrial electronic instruments / RMSa Ss(24) Se(1947) IC

P

PACIFIC MAGNETIC CORPORATION, Electronic Center, Romoland, Calif. / OLYmpia 7-2637 (Perris Exchange) / *C 59

Logic type magnetic amplifiers, transformers, power supplies, toroids; fault-finding systems, using logic type magnetic amplifiers / RMSa Ss(15) Se(1958) IC

H. L. Mills, Pres. / Gordon W. Johnson, VP — Dir. of Engrg.

Pacific Semiconductors, Inc., 10451 W. Jefferson Blvd., Culver City, Calif. / TEXas 0-4881 / *C 58

Silicon and germanium diodes, silicon rectifiers, silicon transistors, varicaps (voltage-variable capacitors), diode test equipment / RMSa Ms(500) Se(1954) IC

PACKARD BELL COMPUTER CORP., a subsidiary of Packard-Bell Electronics Corp., 1905 Armacost Ave., Los Angeles 24, Calif. / GRAnite 8-4247 / *C 59

Voltage to digital and digital to voltage converters, and associated power supplies; multiplexers, sampling, holding, etc.; high speed digital computer; hybrid digital-analog computing devices; differential analyzers; communications systems; combinatorial techniques for digital computers; real time incremental computers; electronic integrators; non-linear function generators for analog computers / RMSa Ms(100) Se(1957) DAC

Max Palevsky, VP / V. A. van Praag, Dir. of Mktg. Panellit, Inc., 7401 N. Hamlin Ave., Skokie, Ill. / ORChard 5-2500 / *C 59

Coordinated controls centers; annunciators and indicating devices, monitoring systems / RMSa Ms(400) Me(1945) ICc

The Ralph M. Parsons Co., Electronics Div., 151 S. De Lacey Ave., Pasadena, Calif. / (Los Angeles), RYan 1-0461 / *C 59

Systems engineering, and manufacturing in electronic instrumentation, telemetry, timing systems, miss-distance indicators, precision delay lines, and precision transponders / RMSa Ms(175) Se(1952) IC

PCA Electronics Inc., 16799 Schoenborn St., Sepulveda, Calif. / EMpire 2-0761 / *C 59

Pulse transformers and delay lines, pulse generator test equipment / RMSa Ms(100) Se(1950) IC

PDP Div. of American Electronics, Inc. (formerly Taller and Cooper), 75 Front St., Brooklyn 1, N.Y. / ULster 8-0500 / *C 59

Mek-a-punch (portable tabulating card punch); data integrator which combines prepunched, variable, and measurable information into tape / RMSa Ms(230) Me(1930) DIC

Pennsylvania State University, X-ray and Crystal Structure Lab., Dept. of Physics, University Park, Pa. / Adams 8-8441 X2125 / *C

X-RAC computer for crystal electron density functions. S-FAC for structure factor calculations / RPa Ms(55) Se(1946) DAC

Perkin Elmer Corp., Electro-Optical Div., Main Ave., Norwalk, Conn. / VICTor 7-2423 / *C 59

Recording missile track systems, infrared systems, laboratory analytical instruments, precision optics, analog computers, potentiometers, special electronic-optical systems / RMSa Ls(1100) Me(1936) AIC

Phaoston Instrument and Electronic Co., 151 Pasadena Ave., South Pasadena, Calif. / CLinton 5-1471 / *C 59

Electric panel meters, test instruments, portable laboratory standards, relays / RMSa Ms(450) Me(1937) IC

George A. Philbrick Researches, Inc., 127 Clarendon St., Boston 16, Mass. / COMmonwealth 6-5375 / *C 58

Electronic analog computers; computer components; computer packaged circuits; magnetic amplifiers; computer packaged circuits; magnetic amplifiers; regulated power supplies; consulting services; electronic function generators; electronic integrators; electronic multipliers / RMSca Ms(70) Se(1947) AIC

PHILCO CORP., GOVERNMENT AND INDUSTRIAL DIVISION, 4700 Wissahickon Ave., Phila. 44, Pa. / VICTor 3-4000 / *C 59

Transac S-2000 all-transistor, large scale data processing systems, electronics systems in communications, scientific systems, industrial TV, microwave and military products; digital computers; digital computing services. Card to magnetic tape, card to paper, magnetic tape to paper tape, magnetic tape to card, paper tape to card, converters. High speed printers; high speed card punch; high speed card readers; in-circuit transistor testers; visual display devices; air traffic control systems; data processing machinery; fire control equipment / RMSca Ls(3000) Le(1892) DIC

Herbert E. Taylor, Jr., Mktg. Mgr., Ind'l Products / John M. Nisbet, Sales Mgr., Computers

PHILCO CORP., LANSDALE TUBE CO. DIV.,
Church Rd., Lansdale, Pa. / UL 5-4681 / *C 59

Transistors, diodes and tubes / RMSa Ls(?) Me(?)
Ic

PHILCO TECHNOLOGICAL CENTER, 22nd and
Lehigh Ave., Philadelphia 32, Pa. / BA 3-1800 / *C 59

Computer and transistor correspondence study
courses / S(Education)a Ss(25) Se(1957) Ic

R. R. Robinson, Managing Dir. / N. P. Dewees,
Advtg & Sales Promotion Mgr.

Philips Electronics, Inc., Instruments Div., 750 S. Ful-
ton Ave., Mount Vernon, N.Y. / MOunt Vernon
4-4500 / *C 59

X-ray diffractometer, x-ray spectrograph instruments,
x-ray cameras, x-ray plating thickness gauges;
Geiger, proportional, scintillation detectors; indus-
trial radiography equipment, electron microscopes,
x-ray microscopes, x-ray microradiograph equip-
ment, x-ray process control instruments / RMSa
Ms(300) Me(1942) Ic

Phillips Control Corp., 59 W. Washington St., Joliet,
Ill. / Joliet 3-3431 / *C 59

Digital and analog computers / RMSa Ms(475)
Se(1946) DAic

Photon, Inc., 58 Charles St., Cambridge 38, Mass. /
TRowbridge 6-1177 / *C

Machinery for composing type by photographs /
RCMSa Ms(100) Me(1940) DIc

PI-SQUARE ENGINEERING CO., INC., 127 Claren-
don St., Boston 16, Mass. / COMmonwealth 6-5375 /
*C 59

Analysis and solution of engineering problems.
Computing services. Analog computing equipment
available / RCPa Ss(?) Se(1954) ASCc

Plastic Capacitors, Inc., 2620 No. Clybourn Ave., Chi-
cago 14, Ill. / DIrvey 8-3735 / *C 58

Capacitors, power supplies, pulse forming networks
for computers and other uses / RMSa Ms(100)
Se(1952) Ic

Polyphase Instrument Co., East 4th St., Bridgeport,
Montgomery County, Pa. / BRoadway 9-4660 / *C 59

Pulse and specialty transformers; magnetic compo-
nents; delay lines; magnetic amplifiers; broadboard
kits; ported circuits; computer type coils / RMSa
Ms(80) Se(1948) Ic

Potter and Brumfield Mfg. Co., Inc., Princeton, Ind. /
FULton 5-5251 / *C 59

Electromagnetic relays / RMSa Ls(1400) Le(1932)
Ic

POTTER INSTRUMENT COMPANY, INC., Sun-
nyside Blvd., Plainview, L.I., N.Y. / OVerbrook 1-3200
/ *C 59

Magnetic and perforated tape handlers with acces-
sories and high speed line printers / RMSa Ms
(200) Me(1942) DIc

John T. Potter, Pres. / N. A. Moerman, Dir. of
Engrg.

Powers-Samas Accounting Machines, Ltd. — merged
into International Computers & Tabulators, Ltd.,
which see

Purdue University, Statistical and Computing Lab., En-
gineering Administration Bldg., Lafayette, Ind. /
92-2703 / *C 58

Statistical and computing services / RCPa Ms(75)
Se(1948) De

Q

Qutronic Semiconductor Corp., 525 Broadway, New
York 12, N.Y. / WAlker 5-3424 / *C 58

Super-speed computer diodes / RMSa Ms(60) Se
(1950) Ic

R

Radiation Counter Laboratories, Inc., 5121 W. Grove
St., Skokie, Ill. / ORchard 3-8700 / *C 58

Nuclear instrumentation; amplifiers; data recording
cameras; analog-to-digital converters; ferrite cores;
mechanical and proportional counters; differential
analyzers; regulated power supplies / RMSa Ms
(80) Me(1947) Ic

Radiation, Inc., P.O. Box 37, Melbourne, Fla. / Park-
way 3-1511 / *C 59

Research; ground-air telemetry and data link sys-
tems; computer input systems and equipment (data
processing, programming, communication translat-
ing, converting); computer output systems and
equipment (recorders and printers) / RMSa Ls
(900) Se(1950) Ic

Radiation Instrument Development Laboratory, 5737
South Halsted St., Chicago 21, Ill. — no response '58,
'59

**RADIO CORP. OF AMERICA, ELECTRON TUBE
DIV.,** 415 South 5th St., Harrison, N.J. / HUMBoldt
3-3900 / *C 58

Electron tubes and photosensitive devices; com-
puter tubes, receiving tubes, thyatrons, storage
tubes, cathode ray tubes, camera tubes, photocells
and other components / RMSa Ls(78,000) Le
(1919) Ic

D. Y. Smith, VP & Gen. Mgr. / L. S. Thees, Gen.
Commercial Mgr.

**RADIO CORP. OF AMERICA, ELECTRONIC DATA
PROCESSING DIV.,** Front & Cooper Sts., Camden 2,
N.J. / WOODlawn 3-3800 / *C 59

General purpose electronic data processing systems
/ RMSa Ls(78,000) Le(1919) Ic

E. D. Foster, VP — EDP / A. R. Hopkins, Market
Mgr. — EDP

**RADIO CORP. OF AMERICA, PRECISION ELEC-
TRONIC INSTRUMENTS DIV.,** Building 15-1,
Camden, N.J.

Magnetic tape recorders / RMSa Ic

**RADIO CORP. OF AMERICA, SEMICONDUCTOR
AND MATERIALS DIV.,** Somerville, N.J. / RAN-
dolph 5-4500 / *C 59

Transistors for computer, military, industrial and
entertainment applications. Semiconductors, diodes,
rectifiers, ferrite memory cores, custom built mem-
ory planes, apertured ferrite memory plates, re-
lays, and other products for computer and other
uses / RMSa Ls(78,000) Le(1919) Ic

A. M. Glover, Gen. Mgr. / F. F. Neuner, Mgr.,
Marketing Dept.

Radio Development & Research Corp., 26 Cornelison
Ave., Jersey City, N.J. — moved, address not known

Radio Receptor Co., subsidiary of General Instrument
Corp., 240 Wythe Ave., Brooklyn, N.Y. / Evergreen
8-6000 / *C 59

Selenium rectifiers, power supplies / RMSa Ls
(640) Le(1922) Ic

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Must be able to understand broad aspects of a problem as well as the application of details. Requires knowledge of digital computers so that problems may be organized for applications and analytical ability in logical application and deductive reasoning. Minimum of two to three years of experience with broad range of interests.

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Experienced in programming for large scale computers, such as IBM 704, 709, or 650, Univac or Datatron. Experienced with compilers and automatic coding techniques. Ability to analyze complex, non-routine, non-numerical problems for programming. Ability to draw detailed flow charts. Also ability to code and direct coders.

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- Digital System Logical Design
- Digital System Design & Research
- Digital Data Handling Systems Designs

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RADIO CORPORATION OF AMERICA
Astro-Electronic Products Division
Princeton, New Jersey



Honeywell 800 costs thousands less than any other high-speed scientific computer

New, all-transistorized Honeywell 800 matches the practical speed and performance of its fastest competition in the scientific field—yet costs at least one third less. Medium-scale in size (and price), Honeywell 800 can tackle and solve with ease scientific problems that would stretch the capabilities of some of the most expensive computers now on the market. New, exclusive features of design and logic equip Honeywell 800 to handle scientific computation with unparalleled economy—a vital consideration as research directors everywhere count engineering costs more closely.

High Internal Operating Speeds

Honeywell 800 gives you an internal operating speed of 30,000 three-address operations per second, the equivalent of 70,000 single-address operations as performed by conventional computers. Honeywell 800 can invert an 80 by 80 symmetric matrix in 75 seconds — or fit 100 points with a 10th degree polynomial curve in one second. The trajectory of an artillery shell can be determined in 1/30th the time it takes the shell to describe it.

Expandable Memory

The high-speed magnetic core memory of Honeywell 800 is available in modules of 4,096 words, up to a practical maximum of 4 modules (16,384). Of course, if your scientific problems demand an even greater capacity, upward adjustments can be made. And remember — the memory capacity of Honeywell 800 is expressed in 48-bit words, which are half again as long as those of most other systems.

Also available are magnetic tape units capable of operating at a peak rate equivalent to 112,000 decimal digits per second. With such high speed you can now invert large matrices or solve large linear programming problems — fast and efficiently — without the expense of a huge memory.

Both Decimal and Binary Floating Point

Honeywell 800's exclusive ability to work in either decimal or binary, fixed or floating point arithmetic enables you to choose the form most convenient to your purposes.

Longer Words Speed Problem Solutions

The greater length of the Honeywell 800 word permits the System to utilize single-precision arithmetic when other computers would be forced to slow down for double precision.

The floating decimal word in Honeywell 800 has a range of 63 digits before the decimal point to 64 zeroes plus 10 digits after it. This sharply reduces the overflow or underflow which complicates programming on other computers. Also, the mantissa (base number) has 10 digits, minimizing the need for drawn-out, multiple-precision computation.

The floating binary word provides even greater range and precision. Numbers may range from the equivalent of 75 decimal places before the decimal point to 76 zeroes and 12 decimal digits after it. The mantissa has 40 binary places, the equivalent of 12 decimal digits.

Maximum Flexibility in Programming Structure

As you would expect from the company "First in Control," Honeywell engineers and scientists have designed Honeywell 800 to give the programmer much greater control, freedom and flexibility in handling scientific computations. Besides three-address instructions, greater word length and the option to work in binary or decimal, floating or fixed-point arithmetic, Honeywell 800 offers the programmer several other major advantages in flexibility.

Indexing (64 index registers) reduces the number of orders required in inductive programming, hence steps up computing speed and conserves memory space. *Word Masking* adds the flexibility of variable-length words to the speed and efficiency of fixed-length words. *Indirect Addressing* enables you to perform such functions as a table look-up or an interchange of rows and columns of a matrix with a single instruction. Honeywell 800's exclusive *Bi-Sequence Operation Mode* gives you the flexibility to depart from the basic program sequence and return to the proper point — without writing special instructions.

Full Complement of Input-Output Devices

In addition to magnetic tape, Honeywell 800 features a full range of standard and high-speed input-output devices in both on-line and off-line models. These include keyboard, paper-tape, punched card and printing devices. Buffering, input-output trunks and internal control have also been designed to simplify the addition of special purpose equipment.

No other system can be adapted so closely to your immediate and specific requirements, or be expanded so easily and economically as those requirements grow.

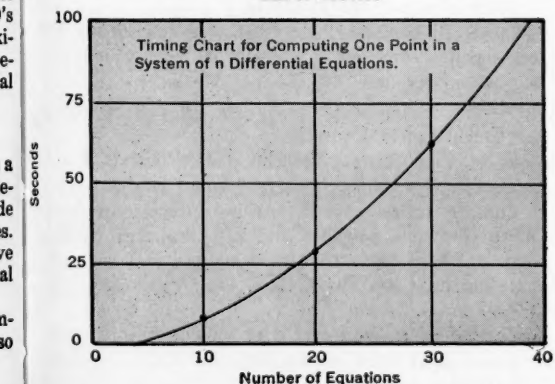
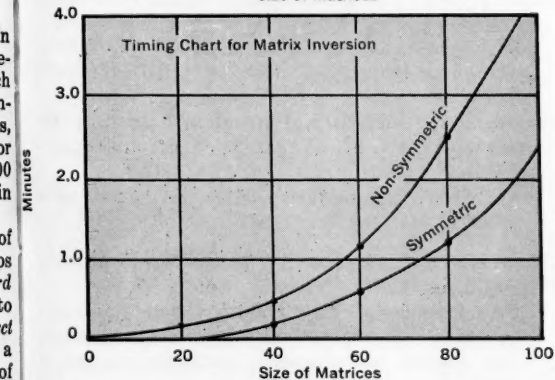
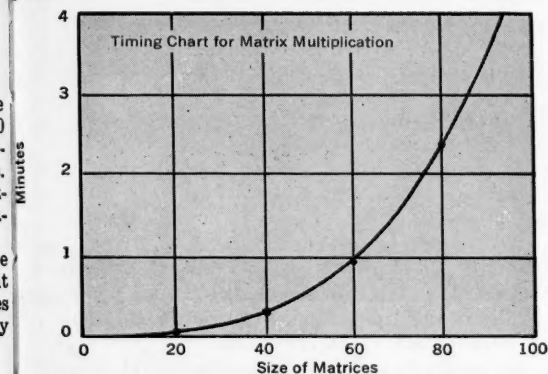
Automatic Error Correction

Completely self-checked internally and externally, Honeywell 800 offers you still more: *Orthotronic Control*. This exclusive means of tape error correction has economically raised the reliability level of Honeywell 800 far beyond the reach of any other computer.

With Honeywell 800 you could easily expect to perform — without interruption — a matrix inversion requiring $1\frac{1}{2}$ days of computer operation. Orthotronic Control is another reason why Honeywell 800 can introduce new economy to scientific computation.

Data Processing Goes On Simultaneously

Honeywell 800's much-heralded principle of Automatically Controlled Parallel Processing enables this System to process business data at the same time scientific problems are being solved. Several different and independently programmed jobs can be processed simultaneously — business, scientific or both. Even a minimum use of parallel processing insures your company of operating efficiency and economy that no other system can approach.



AUTOMATIC PROGRAMMING AND LIBRARY ROUTINES CUT COSTS OF PROBLEM PREPARATION

Automatic programming aids and library routines currently in preparation include the following:

Algebraic Compiler

The Honeywell 800 Algebraic Compiler utilizes the same scientific language used on several other popular computers. The subroutine library consists of routines commonly used in solving scientific problems. Thus, existing programs written in this language can be run on Honeywell 800. Because of the speed and efficiency of Honeywell 800, some of these programs will be processed faster than on the system for which they were written.

Assembly Program

The Honeywell 800 Assembly Program assists the programmer by providing automatic translation from simple pseudo codes to machine language, assigning memory addresses to symbolic tags — assembling various routines comprising the program, and various housekeeping functions associated with program preparation. The job of writing programs is greatly simplified, costs are reduced and accuracy in program preparation is increased.

Automatic Problem Checkout

The Honeywell 800 Automatic Problem Checkout is a set of routines designed to provide the programmer with a complete evaluation of his program under operating conditions. Errors are located more quickly, changes made more easily, machine time for checking purposes is minimized and program management is made more workable and predictable.

Scientific Routines

An expandable library of Honeywell 800 scientific routines is being made available for computations involving trigonometric functions, matrix multiplication, matrix inversion, interpolation, curve fitting, ordinary differential equations, and linear programming.

Data Processing Compiler

The Honeywell 800 Data Processing Compiler simplifies problem preparation and coding and provides for convenient utilization of pre-tested library routines. The programmer prepares his problem in easily-learned business-language codes, which are then automatically translated into machine language by the translator. Individual routines, whether prepared or extracted from the library, are compiled into a complete program at machine speeds. Provision for expanding, modifying and maintaining the subroutine library are included in the Honeywell 800 Data Processing Compiler.

In addition, generator routines for input and output editing and sorting further reduce programming costs.

"Honeywell 800, a Superior Scientific Computer" is a booklet containing full details and specifications of this new and exciting economic approach to complex scientific computation. To get your copy, just write Minneapolis-Honeywell, DATAmatic Division, Dept. A4, Newton Highlands 61, Massachusetts.

Honeywell



DATAmatic

ELECTRONIC DATA PROCESSING

RAMO-WOOLDRIDGE, a division of Thompson Ramo Wooldridge, Inc., 5500 W. El Segundo Blvd., Los Angeles 45, Calif. / ORegon 8-0511 / *C 59

R-W 300 digital process control computer. Airborne digital computers and systems; digital instrumentation and data handling systems. Computation and data reduction center. See also Thompson-Ramo-Wooldridge Products Co. / RMSa Ls(3400) Se(1953) Dc

R. P. Johnson, V.P. and Gen. Mgr.

The Rand Corporation, 1700 Main St., Santa Monica, Calif. / EXbrook 4-0251 / *C 57

Large digital computers for scientific and business uses; analog computers for scientific computations. (For government use only) / RPBa Ls(1000) Se(1946) DAIC

Rank Precision Industries, Ltd., Electronics Department, Sulgrave Rd., Hammersmith, London, W. 6, England / *C 59

High speed computer output printer / RMSa Ic

Ransom Research, P.O. Box 269, 323 W. 7th St., San Pedro, Calif. / TErminAl 2-6848 / *C 59

Consulting and computing services; manufacture of digital systems, computing and logical control systems to customer specifications; converters; counters. Joint research and development programs with customers / RMCa Se(1955) ?s DACc

RAYTHEON MANUFACTURING CO., INDUSTRIAL TUBE DIV., 55 Chapel St., Newton 58, Mass. / BIgelow 4-7500 / *C 59

Reliable miniature and subminiature tubes, low drain filamentary subminiature tubes, special cathode ray tubes / RMSa Ic

RAYTHEON MANUFACTURING CO., SEMICONDUCTOR DIV., 215 First Ave., Needham Heights 94, Mass. / Hillcrest 4-6700 / *C 59

PNP and NPN silicon transistors; PNP germanium transistors for switching, computer, AF, RF and general purpose use; silicon and germanium diodes; silicon rectifiers; silicon diffused junction wire-in and 7/16" stud rectifiers / RMSa Ic

J. B. Rea Co., Inc., Electronics Division, 2202 Broadway, Santa Monica, Calif. / EX 3-3768 / *C 59

Readix digital computer; analog to digital converter, magnetic drums; magnetic reading and recording heads; automatic data handling systems, tape handlers; research and development; memory systems; 60 and 400 cycle voltage stabilizers / RMSa Ss(30) Se(1951) DAICc

Recording and Statistical Corporation, 100 Sixth Ave., New York 13, N.Y. / WOrth 6-2700 / and elsewhere.

Computing and data processing services using electronic digital computers and punched card equipment of latest types / RCPa Dc

Reeves Instrument Corp., East Gate Blvd., Garden City, N.Y. / Pioneer 6-8100 / *C 59

Analog computers and systems, analog-to-digital and digital-to-analog converters, gyros, resolvers, servomechanism systems, radar & guidance systems, computing services, data recording equipment, computers for simulation, automation and control, differential analyzers, electronic integrators / RMSa Ls(1600) Me(1942) AIC

REEVES SOUNDCRAFT CORP., 15 Great Pasture Rd., Danbury, Conn. / PI 3-7601 / *C 59

Magnetic recording tapes for all computer instrumentation, and industrial applications / RMSa Ms(200) Me(1946) Ic

F. B. Rogers, Jr., Exec. VP / Wm. Deacy, VP, Sales The Reflectone Corp., 639 W. Main St., Stamford, Conn. / FieIdstone 8-4201 / *C 57

Analog computing equipment for simulating radar, sonar, navigation, etc. / RMSa Ms(200) Me(1940) AIC

Remington Rand Division of Sperry Rand Corp., 315 Fourth Ave., New York 10, N.Y. SPring 7-8000 / *C 59

Digital electronic computers (Univacs), computing services, office machines, and systems / RMSa Ls(8000) Le(1876) Dc

Rensselaer Polytechnic Institute, Computer Laboratory, Troy, N.Y. / ASHley 2-3000, X 240 / *C 58

Computation, digital and analog; training in the use of digital and analog computers. Computers used: IBM 650, REAC / RC(education)a Ss(7) Se(1952) DAC

Reon Resistor Corp., 117 Stanley Ave., Yonkers, N.Y. / YOnkers 5-9850 / *C 59

Precision wirewound resistors, composition variable resistors / MSa Ms(75) Se(1952) Ic

Rese Engineering, Inc., 731 Arch St., Philadelphia 6, Pa. / WAlnut 2-5841 / *C 59

Magnetic core memories, magnetics test equipment, consulting, packaged computer circuits, buffers, digital simulators, digital systems engineering / RMSa Ms(55) Se(1953) Dc

Resistance Products Co., 914 S. 13th St., Harrisburg, Pa. / CEdar 6-5081 / *C 59

Resistors: wire wound, high voltage, high megohm, high frequency / RMSa Ms(370) Me(1947) Ic

The Rex Corp., subsidiary of American Enka Corporation, Hayward Rd., W. Acton, Mass. / COlonial 3-7721 / *C 59

Rex-Array photorectifiers; miniature coaxial cable / RMSa Ms(300) Me(1934) Ic

RICHARDSON CAMERA CO., INC., 2526 N. Ontario St., Burbank, Calif. / VICTORIA 9-4637 / *C 59

Photogrammetric data reduction and projection equipment; theodolite cameras, pulse-data cameras, film readers, film assessors, electronic counters / RMSa Ss(30) Me(1937) Ic

Lee R. Richardson, Pres. / Maurice Richardson, VP Robotyper Corporation, 125 Allen St., Hendersonville, N.C. — no response '58, '59

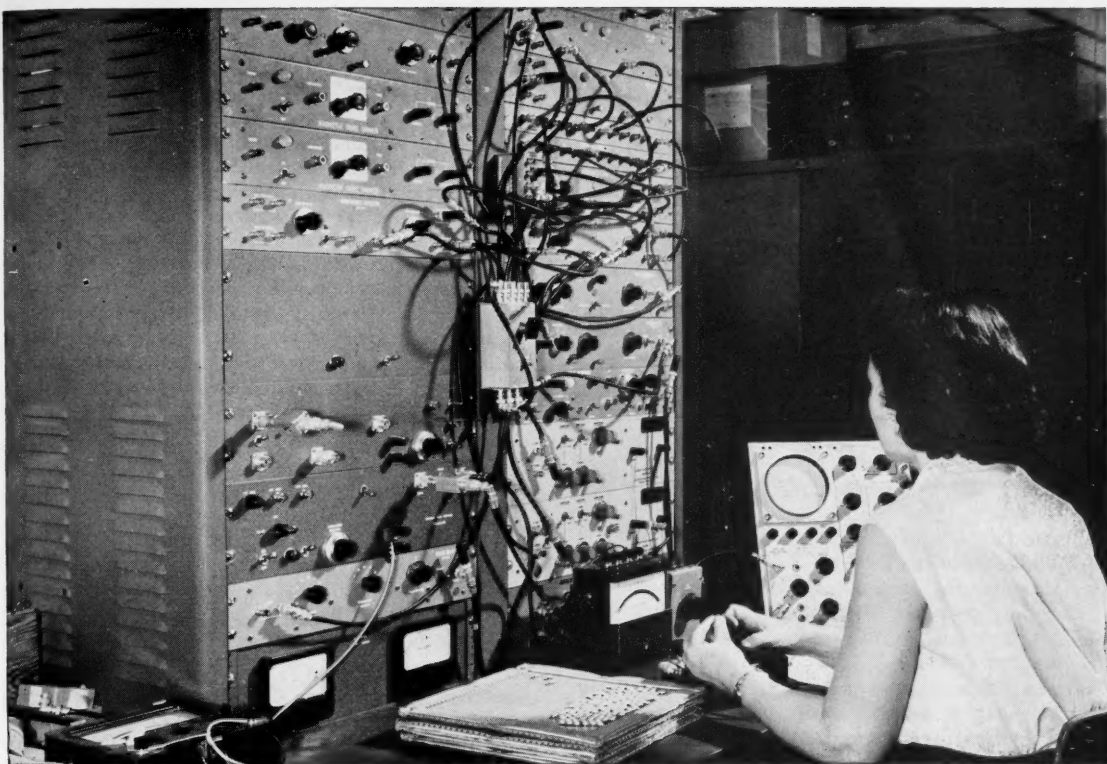
Rome Air Development Center — see U.S.A.F., Rome Air Development Center

Rotron Manufacturing Co., Schoonmaker Lane, Woodstock, N.Y. / ORiole 9-2401 / *C 59

Cooling devices: small fans and blowers for flushing computer consoles and cabinets with cooling air / RMSa Ms(310) Me(1948) Ic

Royal Electric Corp., 95 Grand Ave., Pawtucket, R.I. / PAwtucket 2-8600 / *C 59

Coaxial cable, insulated wire, power supply cords, grasshopper fuses, wiring devices / RMSa Ls(1000) Le(1920) Ic



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ROYAL-McBEE CORP., Westchester Ave., Port Chester, N.Y. / WEStmore 7-3000 / *C 59

Royal Precision LGP-30 electronic computer. Data processing equipment / RMSa Ls (12,000) Se(1954) Dc

A. T. Craft, VP—Sales / A.A.F. Aschauer, Dir, Computer Sales

Rutherford Electronics Co., 8944 Lindblade St., Culver City, Calif. / VE 9-0116 / *C 59

Electronic test equipment. Pulse generators, accurate time delay generators / RMSa Ms(50) Se (1952) Ic

S

Sage Electronics Corp., 1 Country Club Rd., P.O. Box 126, East Rochester 10, N.Y. / LUDlow 6-8010 / *C 59

Wirewound, precision, power resistors / RMSa Ss(50) Se(1949) Ic

Sanborn Co., 175 Wyman St., Waltham 54, Mass. / TWinbrook 4-6300 / *C 59

Direct-writing oscillographic recording systems; recording paper; analog computer readouts; visual output devices; X-Y recorder, chart viewer; transducers / RMSa Ls(800) Le(1917) Ic

Sangamo Electric Co., Springfield, Ill. / 4-6411 / *C 59
Magnetic amplifiers; capacitors; connectors and other components; electrical power and frequency converters; switches; mechanical generators; power supplies; pulse transformers; tape transports / RMSa Ls(4,500) Le(1899) Ic

Schweber Electronics, 60 Herricks Rd., Mineola, L.I., N.Y. / Pioneer 6-6520 / *C 59

Distributor specialists for connectors, capacitors, and other electronic components for computers, etc. / Sa Ss(30) Se(1952) Ic

Scientific Computing Service, 23 Bedford Square, London W C 1, England / Museum 0808 / *C 59

Problem solving, mathematical and statistical consulting. Digital computing service / RCPa Ss(15) Me(1937) Dlc

Scientific Surveys Div.—see General Automatics, Inc.

Seismograph Service Corp., 6200 E. 41st St., P.O. Box 1590, Tulsa, Okla. / RIverside 3-1381 / *C 58

Electronic and mechanical equipment used in seismic and other types of geophysical explorations; computing services; data processing machinery; radio location system LORAC (both manufacture and service); analog computers; special purpose computers / RMSCa Ls(1200) Me(1931) Alc

The Service Bureau Corp., Subsidiary of International Business Machines Corp., 425 Park Ave., New York 22, N.Y. / *C 59

Computing and data processing service using all models and types of International Business Machines Corp. machines, including IBM Magnetic Drum Calculators 650 and IBM Electronic Data Processing Machines 704. Comprehensive facilities (including programming) for all applications, such as methods, engineering, control, plant operations, etc. Data processing centers with 650's in Baltimore, Boston, Chicago, Cleveland, Detroit, Hous-

ton, Los Angeles, Minneapolis, New York (704 & 650), Philadelphia, Pittsburgh, St. Louis, Seattle, San Francisco, and Washington, D.C. / RPCa Ls (500) Se(1957, separate corp.; over 30 years, div. IBM) DAC

Servo Corp. of America, 2020 Jericho Turnpike, New Hyde Park, N.Y. / Fieldstone 3-4100 / *C 58

Servomechanisms, signaling controls, automatic controls and equipment, analysis and synthesis for control manufacturers; temperature controls by infrared radiation. Industrial controls, servo multipliers and components; computer test equipment, analog and digital computers, magnetic amplifiers, plotting boards, breadboard kits, computer packaged circuits, magnetic clutches, communications systems, indicators, differential analyzers, fire control and data recording equipment, power supplies / RMSa Ms(300) Me(1946) DAISCc

Servomechanisms, Inc., Post and Stewart Sts., Westbury, L.I., N.Y. / Edgewood 4-2700 / also 12500 Aviation Blvd., Hawthorne, Calif. / Osborne 5-7111 / *C

Automatic electronic and electro-mechanical control systems and components, analog computers, instrumentation. Airborne digital computers, digital transducers / RMSa Ls(800) Se(1946) ASICc

Servonics, Inc., 834 N. Henry St., Alexandria, Va.—no response '58, '59

Shallcross Manufacturing Co., Jackson & Pusey Avenues, Collingdale, Pa. / LUDlow 3-5100 / *C 58

Automatic assembly equipment, coil winding bobbins, resistors, stepping switches, attenuators, delay lines, and other components / RMSCa Ms(130) Me(1929) Ic

Shand and Jurs Co., 2600 Eighth St., Berkeley 10, Calif. / ASHbury 3-2345 / *C 59

Pulse type telemetering and function control systems for liquid storage, transport and handling; direct wire remote control and supervision systems for industrial devices; data recording equipment and signaling controls / RMSa Ms(200) Le(1922) Ic

SHEPARD LABORATORIES, INC., Broad St. at Park Ave., Summit, N.J. / CRestview 3-5255 / *C 59

High-speed input-output accessories for data processing systems (typers, decoders, tape transports, electronic splicers) / RMSCa Ss(40) Me(1944) Dlc
F. H. Shepard, Jr., Pres. / E. J. Quinby, Product Mgr.

Short Brothers & Harland Ltd., Montgomery Rd., Castle reagh, Belfast, N.I. / Belfast 5-9271 / *C 58

Analog computers, low frequency oscillators, vectorscopes, squarers, sine and cosine generators; amplifiers; time delay units; desk analog computers; consulting services; analog-to-digital converters; electro-hydraulic equipment; multiplier units; function generators; servo-controlled rocking tables; packaged computer circuits / RMSCa Ls(10,000) Le(1910) Alc

F. W. Sickles Division, General Instrument Corp., 165 Front St., Chicopee, Mass. / LYceum 4-4781 / *C 59

Computer components, magnetic amplifiers, etc. / RMSa Ls(2520) Le(1921) Ic

Sigma Instruments, Inc., 170 Pearl St., S. Braintree 85, Mass. / VICTor 3-5000 / *C 59

Sensitive, polarized, keying, latching, photoelectric, high release, magnetic amplifier, relays; synchronous stepping motors; relay test sets / RMSa Ls (750) Me(1935) Ic

Smith-Corona Marchant Inc., 701 E. Washington St., Syracuse 1, N.Y. / GRanite 6-9911 / *C 59

Data processing and recording systems for special applications; communications systems for data processing systems. Adding machines, electric controlled typewriters; desk calculators, magnetic to paper tape converters; paper to magnetic tape converters; input/output devices; office machines; high-speed and keyboard printers; magnetic tape, mechanical, paper tape and photo-electric readers, magnetic tape recorders and storage systems; paper tape punches; translating equipment / RMSa Ls (10,000) Le(1903) Ic

SOCIETE D'ELECTRONIQUE ET D'AUTOMATISME, 138, Boulevard de Verdun, Courbevoie, (Seine), France / DEFense 41-20 / *C 59

Analog computers Type O.M.E. L-2 and O.M.E. P-2 with non linear components and recorders; flight simulators; digital computers Type CAB 500 and 3,000 for scientific applications and data processing, using punched tape and magnetic tape; input and output equipment, tape reader, paper tape punches. Electronic high speed printers "NUMEROGRAPH;" digital to analog converter "ENAC;" automation devices, coders, storage, etc.; numerical control / RMSa Ls(500) Se(1948) DASCic

M. Gaulet, Pres. / M. F. H. Raymond, Mgr.

Sola Electric Co., 4633 W. 16th St., Chicago 50, Ill. / Bishop 2-1414 / *C 57

Constant voltage transformers, regulated DC power supplies, etc., for computer and other uses / RMSa Ms(250) Me(1930) Ic

Sorenson & Co., Inc., Richards Ave., So. Norwalk, Conn. / TE 8-6571 / *C 59

Low, medium, and high voltage power supplies, voltage regulators, frequency changers / RMSa Ms(465) Me(1943) Ic

SOROBAN ENGINEERING, INC., Box 1717, Melbourne, Fla. / Parkway 3-7221 / *C 59

Data input-output systems; data preparation devices; output tabulating devices; coding keyboards; paper tape readers and perforators; specialized data computing systems and consulting services on all of above; computer components; relays; storage systems; paper tape punches and readers; translating equipment; electric controlled typewriters / RMSCa Ms(110) Se(1954) Ic

Charles F. West, Pres. / H. F. Manweiler, Sec. Treas.

Southern Electronics Corp., 239 W. Orange Grove Ave., Burbank, Calif. / Victoria 9-3193 / *C

Precision capacitors, adjustable capacitors / RMSa Ms(60) Se(1951) Ic

Southwestern Computing Service, 910 S. Boston, Tulsa, Oklahoma / GI 7-8146 / also, 1345 Stout St., Denver 4, Colorado / TA 5-8159 / *C 59

Computing service, solving data reduction, engineering and business problems; IBM 604, 650, Al-

wac III, and associated equipment / RCPa Ss(20) Se(1953) DAC

Southwestern Industrial Electronics Co., a division of Dresser Industries, Inc., 10201 Westheimer Rd., P.O. Box 13058, Houston 19, Tex. / Ho 5-3471 / *C 59

Geophysical instruments, magnetic tape systems, electronic test instruments, control and automation systems, government contracting, heavy manufacturing; amplifiers, all types of circuits, analog and digital computers, consulting services, counters, data processing machinery, data recording machinery, magnetic heads, integrators, regulated power supplies, storage systems, and telemetering systems / RMSCa Ls(900) Me(1945) DAIC

Specialties, Inc., Syosset, N.Y. / Walnut 1-2345 / Charlottesville, Va. / Charlottesville 3-5131 / *C

Precision potentiometers, servos, magnetic amplifiers, transformers, sensing elements, etc., for computer and other uses / RMSa Ms(300) Se(1941) Ic

Spectrol Electronics Corp., 1704 South Del Mar Ave., San Gabriel, Calif. / ATLantic 7-9761 / *C 59

Precision potentiometers; precision mechanisms; transistorized converters and inverters, power supplies, switches; resistors, variable, linear and non-linear / RMSa Ls(over 500) Se(1955) Ic

Sperry Rand Corporation, Sperry Gyroscope Division, Great Neck, N.Y. / Fieldstone 7-3600 / *C 59

Research, design, development and manufacture of general and special purpose telemetering, data processing equipment; digital and analog computers for fire control; air, sea and space navigation. Specializing in automatic transistorized, miniaturized devices / RMSa Ls(18,000) Le(1910) AIC

SPERRY SEMICONDUCTOR DIV. OF SPERRY RAND CORP., Wilson Ave., S. Norwalk, Conn. / VOLunteer 6-1641 / *C 59

Silicon diodes, transistors, rectifiers, semiconductor products / RMSa Ms(300) Se(1956) Ic

Dr. W. R. Sittner, Div. Mgr. / A. M. Varnum, Sales Mgr.

Sprague Electric Co., 377 Marshall St., North Adams, Mass. / Mohawk 3-5311 / *C 59

Capacitors: miniature, and low dielectric hysteresis loss, for computer applications. Standard capacitors; precision and power type resistors; pulse transformers; radio interference filters; shift registers; printed circuits / RMSa Ls(6000) Le(1926) Ic

Stackpole Carbon Co., Stackpole St., St. Marys, Pa. / TE 4-1521 / *C 58

Fixed and variable composition resistors, permanent magnets, ferrite and magnetic cores, carbon brushes, mechanical carbon products, electrical contacts, switches / RMSa Ls(3000) Le(1906) Ic

The Standard Electric Time Co., 89 Logan St., Springfield 2, Mass. / RERpublic 6-7237 / *C 59

Analog computers, electric time systems, timing instruments and devices, signaling and communication systems, laboratory power distribution systems, McIlroy fluid network analyzer / RMSa Ms(450) Le(1884) AIC

Standard Instrument Corp., Div. of Heat-Timer Corp., 657 Broadway, New York 12, N.Y. — no response '58, '59

The Standard Register Co., Dayton 1, Ohio / BALdwin 3-6181 / *C 58

- Electronic equipment (called "Stanomatic") capable of sensing or reading printed codes on original source documents and translating them into digital pulses which will actuate office machines such as card punches, tape perforators, computers, etc. Devices for encoding documents at original writing. Data processing and recording equipment, input-output devices, office machines, readers, and information converters / RMSa Ls(3500) Le(1912) Dc
- Stanford Computation Center, Stanford University, Stanford, Calif. / DA 1-3300 / *C 59
- Computing service. Education involving uses of computers. IBM 650 / RCPa Ss(5) Se(1953) Dc
- Stanford Research Institute, Menlo Park, Calif. / DAvenport 3-9051 / *C 58
- Design of digital and analog computers, input and output devices and other peripheral equipment. Applications and system studies for commercial, industrial and scientific projects. Computation laboratory. Numerical analysis / RCPa Ls(1400) Me(1947) DAC
- Statistical Instrument Co., 330 Haven Ave., New York 33, N.Y. / LO 8-1223 / *C 59
- Statistical processing equipment; computer test equipment, analog to digital and digital to analog information converters, low frequency noise generators, amplitude probability distribution analyzers, random number generators / RCA Ss(4) Se(1953) DAC
- Stereotronics, 66 Westland, Weston 93, Mass. / TWinbrook 4-6071 / *C 58
- Solid-state information-handling devices: transistor, magnetic, ferroelectric applications / RMSa Ss(2) Se(1954) Ic
- Sterling Precision Corp., Instrument Div., 17 Matinecock Ave., Port Washington, N.Y. / PO 7-7200 / *C 59
- Ground speed drift angle computer / RMSa Ms(284) Se(1952) Ic
- Steward Manufacturing Co., P.O. Box 510, Chattanooga, Tenn. / TAYlor 1-1561 / *C 58
- Ferrite magnetic cores, recording heads, pulse transformer cores / RMSa Ms(150) Le(1904) Ic
- Strand Engineering Co., 1354 N. Main St., Ann Arbor, Mich. / NORmandy 2-3127 / *C 59
- Research, design, development of equipment and systems; production engineering; building of pilot models; amplifiers; automatic assembly equipment; automatic control equipment; data recording cameras; computer packaged circuits, analog and digital computers; computers, test equipment; controls, automatic, sorting and counting; high frequency electrical converters; converters, information analog to digital; electronic counters; data processing machinery; magnetic drums / RMSa Ms(50) Se(1955) ICMc
- Strandberg Engineering Lab., Inc., 416 W. Market St., Greensboro, N.C. / BR 5-1326 / *C 58
- Electronic textile counters and memory systems for production and inventory control, patch cords, recording papers, scanners, visual output devices / RMSa Ss(19) Se(1950) Ic
- Stromberg-Carlson, a Division of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N.Y. / HUBbard 2-2200 / *C 58
- Special purpose digital computers, computer modules, ancillary devices, high-speed computer output printers. Automatic control equipment, cable and cable assemblies, computer packaged circuits, communications systems, analog computers, computer components, automatic sorting and counting controls, cords, paper to magnetic tape information converters, electronic counters, data processing and recording equipment, information retrieval devices, memory systems, magnetic tape readers and recorders, shift registers, relays, stepping switches, telemetering systems, transformers, visual output devices / RMSa Ls(8500) Le(1884) DAic
- Stromberg-Carlson (West Coast), 1895 Hancock St., Box 2449, San Diego 12, Calif. / CY 8-8331 / *C 58
- High speed electronic printers, microfilm recorders, plug-in and potted circuits, small scale special purpose computers, specialized data-processing editing machine, digital devices for display of computer information, indicators, input and visual output devices (the charactron), analog to digital converters / RMSa Ms(360) Se(1955, San Diego) DIC
- Sturup, Inc., 50 Silver St., Middleton, Conn. / Diamond 6-9681 / *C 59
- Ultrasonic delay lines, transducers, etc., for computer and other uses / RMSa Ms(60) Se(1951) Ic
- Sunshine Scientific Instrument Co., 1810 Grant Ave., Philadelphia 15, Pa. / ORchard 3-5600 / *C 59
- Analog field plotter, prototypes, precision electromechanical assemblies, mechanical components / RMSa Ss(30) Me(1947) AIC
- Superex Electronics Corp., 4 Radford Pl., Yonkers, N.Y. / YONkers 5-6906 / *C 59
- Cable assemblies, plug in and printed circuits, coils, ferrite cores, jacks, transformers, and other components / RMSa Ms(50) Se(1950) Ic
- SUTHERLAND CO., 1112 First National Bank Co., Peoria, Illinois / 3-5431 / *C 59
- Digital computers for business applications / RMSCa Ss(20) Se(1950) Dc
- J. E. Sutherland, Pres.
- Swedish Board for Computing Machinery, Drottninggatan 95A, (P.O. Box 6131), Stockholm 6, Sweden / Stockholm 23 55 90 / *C
- State central institution for research, development, and computation service on large-scale machines. Operates two automatic digital computers. BARK and BESK, designed and built by the Board. Research on numerical analysis; development of new computers. Computing service (digital) using BARK and BESK / RMCPa Ss(30) Se(1949) Dc
- Sylvania Electric Products, Inc., 100 First Ave., Waltham, Mass. / TWinbrook 3-9200 / *C 59
- Research and development activities for general and special purpose computers, data handling devices and computer components / RPa Ss(1955) Ic
- Sylvania Electric Products, Inc., 1740 Broadway, New York 19, N.Y. / — / *C 57
- Computers. Computer products: transistors, diodes, electronic tubes / RMSa Ls(27,000) Le(1901) DAic

Sylvania Electric Products Inc., Semiconductor Division, 100 Sylvan Rd., Woburn, Mass. / WElls 3-3500 / *C 59

Transistors, germanium diodes, silicon junction diodes, silicon power rectifiers, microwave diodes / RMSa Ls Le Ic

SYLVANIA ELECTRONIC SYSTEMS, A Division of Sylvania Electric Products Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / HILLcrest 4-3940 / *C 59

Large scale, general and special purpose computers; medium scale general and special purpose computers; data handling devices, data conversion devices; plug-in and printed circuit modules, coils, communications systems, computer components / RMSCPa Ls(1800) Se(1955) Dc

E. J. Vigneron, Plant Mgr. / T. T. Hill, Technical Liaison Mgr.

SYSTEMS LABORATORIES CORP., 14852 Ventura Blvd., Sherman Oaks, Calif. / STate 9-0501 / *C 59

Computing facility using LGP-30 to solve problems arising from consulting and research in electronic systems / RCPa Ss(40) Se(1956) Ic

Dr. James Marsh, Pres. / Richard H. DeLano, Exec. V.P.

T

Taller and Cooper, 75 Front St., Brooklyn, N.Y. — name changed to PDP Div. of American Electronics, Inc., which see

Tally Register Corp., 5300 14th Ave. NW, Seattle 7, Wash. / SUNset 4-5500 / *C 59

Digital X-Y plotter, paper tape readers, tape punches, tape verifiers; pulse delay logic switches and counters, special digital data systems / RMSCa Ss(40) Se(1950) Dc

Tammen & Denison, Inc., Div. of Land Air Inc., 4751 North Olcott, Chicago 31, Ill. / UNderhill 7-7550 *C 59

Computer service using Electronic Associates' 1631 analog computer / RPCa Ls(2700) Me(1944) Ac

Taylor Instrument Co., Rochester, N.Y.

Automatic controllers / RMSa Ls Le Cc

TECHNICAL OPERATIONS, INC., Burlington, Mass. / BR 2-2000 / *C 58

Industrial, commercial and military operations research; computer systems and applications, data processing systems; transistorized power supplies (manufactured by subsidiary) / RMSCa Ms(210) Se(1951) Ic

Techniques Inc., 40 Jay St., Englewood, N.J. / LOWell 9-5333 / *C 59

Printed circuits; photo-etched metal parts / RMSa Ss(15) Se(1954) Ic

TECHNITROL ENGINEERING CO., 1952 E. Allegheny Ave., Philadelphia 34, Pa. / GARfield 6-9105 / *C 59

Custom designed computers and data processing systems. Electronic test equipment. Pulse transformers. Computer components. Delay lines. High speed memories, digital systems / RMSa Ms(200) Me(1947) Dc

E. Stuart Eichert, Pres. / T. Kite Sharpless, VP, Sales Technology Instrument Corporation, 531 Main St., Acton, Mass. / COLonial 3-7711 / *C 59

Infinite resolution potentiometers; special research and development facilities; pressure transducers; clutches and brakes / RMSa Ms Me(1946) Ic

Telecomputing Corp., Data Instruments Div. — see Data Instruments Div. of Telecomputing Corp.

Telectro Industries Corp., 35-16 37th St., Long Island City, N.Y. / YELlowstone 2-8600 / *C 59

Plotting boards, cable assemblies, analog to digital converters, card to magnetic tape converters, magnetic tape to card converters, data processing machinery, data recording equipment, facsimile equipment, mechanical generators, magnetic-reading-recording heads, electronic integrators, readers, simulators, magnetic storage systems, telemetering systems / RMSa Ms(200) Se(1948) Ic

Tele-Dynamics Inc., 5000 Parkside Avenue, Philadelphia 31, Pa. / TRinity 8-3000 / *C 59

Telemetering components and systems; data handling systems / RMSCa Ls(590) Se(1948) Ic

TELEMETER MAGNETICS, INC., 2245 Pontius Ave., Los Angeles 64, Calif. / GR 7-4211, BR 2-0991 *C 59

High-capacity rapid-access ferrite core memories, core matrices, core storage buffers, data translators, data handling systems, magnetic storage systems. Systems design and development / RMSCa Ms(200) Se(1956) Dc(200)

Erwin Tomash, Pres. / Raymond Stuart-Williams, V.P.

Teleregister Corporation, 445 Fairfield Avenue, Stamford, Conn. / FIreside 8-4291 (New York City, Ludlow 5-8900) / *C 57

Digital special purpose computers. Data processing systems for special applications: inventory control, invoicing, travel reservations, flight data, stock market quotations, maintaining and servicing equipment, etc. Electro-mechanical digital display systems. Magnetron Reservoir in use at American Airlines reservations center. Magnetron stock quotation system in use in Toronto Stock Exchange / RMSCa Ls(600) Me(1928) Dc

Teletype Corp., 4100 Fullerton Ave., Chicago 39, Ill. / SPauling 2-1040 / *C 59

Teletype printers, tape punches and readers / RMSa Ls(5200) Le(1907) Ic

The Teller Company, 101 Hansen Ave., P.O. Box 989, Butler, Pa. / BUTler 75-739 / *C 59

Automatic controls, step motors, digital and analog computers, systems engineering / RMSCa Ms(80) Se(1951) DACc

Texas Instruments Inc., Semiconductor-Components Div., 6000 Lemmon Ave., P.O. Box 312, Dallas, Tex. / ADams 5-3111 / *C 59

Semiconductor products and components, silicon and germanium transistors, silicon diodes and rectifiers, resistors, tantalum capacitors / RMSa Ls(2400) Se(1954) Ic

Thermosen, Inc., 375 Fairfield Ave., Stamford, Conn. / DAVis 5-1324 / *C 59

Temperature limited diodes, silicon power rectifiers, electronic tubes, semiconductors / RMSa Ms Se (1951) Ic

THE THOMPSON-RAMO-WOOLDRIDGE PRODUCTS CO., a Div. of Thompson-Ramo-Wooldridge Inc., P.O. Box 90067, Airport Station, Los Angeles 45, Calif. / OSborne 5-4601 / *C 59

RW-300 digital control computer for automatic control and data reduction; general-purpose digital computer incorporating analog-digital conversion equipment, and handling more than 1000 analog input and output channels. Digital control and data handling systems (with or without the RW-300) for process industries (oil refineries, chemical plants, pilot plants, etc.) and for test facilities. See also Ramo-Wooldridge Div. / RMSCa Ms(75) Se (1955) DACc

Dr. Joseph F. Manildi, Gen. Mgr. / Raymond E. Jacobson, Dr. of Mktg.

Traid Corporation, 17136 Ventura Blvd., Encino, Calif. / STanley 3-3373 / *C 59

Data recording cameras / RMSa Ss(25) Me(1946) Ic

Trans Electronics, Inc., 7349 Canoga Ave., Canoga Park, Calif. / DIamond 0-3334 / *C 58

Power supplies, power frequency converters, semiconductor test equipment / RMSa Ss(25) Se(1954) Ic

Transistor Products, Inc., 241 Crescent St., Waltham 54, Mass. / WALtham 5-9330 / *C

Transistors, diodes / RMSa Ms(150) Se(1952) Ic

Transitron Electronic Corp., 168 Albion St., Wakefield, Mass. / CRYstal 9-4500 / *C 59

Transistors, silicon rectifiers, silicon capacitors, germanium diodes / RMSa Ls(3000) Se(1952) Ic

Trio Laboratories, Inc., Expressway Industrial Park, Plainview, L.I., N.Y. / OVerbrook 1-0400 / *C 59

Analog component for solving three dimensional equations (RODIAC); all transistor voltage comparator; test instruments / RMSa Ms(60) Se(1954) AIC

Tung-Sol Electric, Inc., 95 8th Ave., Newark 4, N.J. / HUmboldt 2-4200 / *C 59

Electron tubes, semi-conductors, miniature lamps, diodes, germanium transistors / RMSa Ls(7000) Le(1904) Ic

TYPATAPE equipment — now sold and manufactured exclusively by National Data Processing Corp., which see

U

UNDERWOOD CORPORATION, One Park Ave., New York 16, N.Y. / ORegon 9-3400 / *C 59

Adding and accounting machines; manual and electric typewriters; Data-Flo systems including wide range of automatic electric typewriters and adding machines, paper tape reading and punching, punch card reading and punching, all integrated under plugboard program control; servotypers, master-typers, and servomasters; automatic electric typewriters for input and output in instrumentation, data logging, and computing equipment; Under-

wood Electronic Business Computer (UEBC) small size, low cost computer with paper tape input and output / RMSa Ls(13,000) Le(1894) DISc
Frank E. Beane, Pres. & Chairman of the Board / David H. Burrell, VP, Marketing

Union Switch & Signal, Div. of Westinghouse Air Brake Co., Braddock Ave., Pittsburgh 18, Pa. / CHurcHill 2-5000 / *C 59

Railroad signaling and control systems. Pipeline control and telemetering systems. Data display indicators (digital and alpha-numerical). Relays (hermetically sealed) / RMSa Ls(3000) Le(1881) DAIC

U.S. Air Force, Cambridge Research Center, 230 Albany St., Cambridge 39, Mass. / UNiversity 4-4720

Developed the ABC (Automatic Binary Computer). Has a Computer Research Corp-102 / Ga Ms Me IDc

U.S. Air Force, Digital Computation Branch (WCL-JEU), Wright Air Development Center, Wright-Patterson Air Force Base, Dayton, Ohio / CL 3-7111 (Dayton) X 28235 / *C 59

Computation services and associated research on three large-scale digital computers, including two Univac Scientifics (1103 and 1103A). Punch card machines. For government use only / RCGPa Ms (50) Se(1950) Dc

U.S. Air Force, Inst. of Technology, Wright-Patterson Air Force Base, Ohio / *C 59

Philbrick, Reac, and Geda analog computing machines in regular use, also RECOMP II digital computer / RGa Ms(300) Se(1946) DAIC

U.S. Air Force, Rome Air Development Center, Statistical Services Div., Griffiss Air Force Base, Rome, N.Y. / ROme 3200, X 7-1219 / *C 58

Computing service, analog, digital; for government only. Have Datatron 205, Elecom 120, Bendix digital differential analyzer D-12, Reeves electronic analog computer, Benson-Lehner data reduction equipment, considerable IBM data processing equipment / RCPa Ss(45) Se(1951) DAIC

U.S. Air Force, Structures Branch, Computation Div., Directorate of Management Analysis, Headquarters USAF, Pentagon Bldg., Washington 25, D.C. / LIberty 5-6700, X 75136, 77712 / *C 59

Systems analysis reports; non-engineering types of computer applications; programming systems / CGPa Ss(35) Se(1948) Dc

U.S. Air Force, Wright Air Development Center, Aeronautical Research Laboratory, Wright-Patterson Air Force Base, Ohio / CL 3-7111, X28235 / *C 59

Computing service (for Air Force use) has modernized General Electric Oarac; Univac 1103; Univac 1103A; Reeves system dynamics simulator; Bendix DDA / RCPGa Ms(62) Se(1948) DAC

U.S. Army, Ballistic Research Laboratories, Aberdeen Proving Ground, Aberdeen, Md. / *C

Computing service (digital); for government and government contractors only / CPGa Ms Le DAC

U.S. Ceramic Tile Co., Diamonite Div. — see Diamonite Products Mfg. Co.

United States Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass. / HIghland 5-3850 / *C 57

Silicon diodes and power rectifiers, transistors, germanium diodes, and rectifiers, for computer and other uses / RMSa Ms(100) Se(1955) Ic

U.S. Electronics Development Corp. — name changed to U.S. Semiconductor Products, Inc., which see.

U.S. Naval Proving Ground, Computation and Analysis Laboratory, Dahlgren, Va. / NOrth 3-2511 / *C 59

Mathematical analysis and research, programming, engineering, computing, and data processing services for government and government contractors only; operates NORC computer, Universal Data Transcriber and a variety of auxiliary equipment / RCa Ms(190) Me(1942) Dc

U.S. Navy, Aviation Supply Office, Data Processing Division, Philadelphia, Pa. / *C 57

Operates IBM 650 and IBM 702 for inventory control. Government use only / Ga Ls Me Dc

U.S. Navy, Naval Research Laboratory, Washington 25, D.C. / JO 3-6600 / *C 57

NAREC digital computer. Analog computers, servo mechanisms and data reduction / RCGPa Ls(3400) Le(1923) DASC

U.S. Semiconductor Products, Inc., 3540 West Osborn Rd., Phoenix, Ariz. / APplegate 8-5591 / *C 59

Solid tantalum capacitors, silicon crystals, diodes, rectifiers / RMSCa Ms(400) Se(1957) Ic (formerly U.S. Electronics Development Corp.)

Univ. of California, Berkeley, Calif. / *C 56

Computing service. Has CALDIC, California Digital Computer; also IBM 701 / RPCa Ss(10) Se (1947) DAc

University of California, Department of Mathematics, Numerical Analysis Research, Los Angeles 24, Calif. / Granite 3-0971 and Bradshaw 2-6161 / *C 59

Research and teaching in use of digital computers for scientific computation. Operates SWAC. Maintains for the Office of Naval Research a definitive research book collection in numerical analysis and related areas, especially mathematics. Successor to National Bureau of Standards Institute for Numerical Analysis RPCa Ss(25) Se(1945) Dc

University of Cambridge, University Mathematical Laboratory, Corn Exchange St., Cambridge, England / 59,574 / *C 59

Built Edsac 1 and Edsac 2. Computing service (digital) for University / RCPa Ss(30) Me(1939) Dc

University of Durham Computing Laboratory, One Kensington Terrace, Newcastle upon Tyne, 2, England / Newcastle 2-2457 / *C 59

Computing service. Has Ferranti Pegasus computer / RCPa Se(10) Se(1956) Dc

University of Illinois, Digital Computer Laboratory, Urbana, Ill. / EM 7-6611, ext. 2817 / *C 59

Computing service (internal to University). Education including research and teaching / RCPa Ms (70) Se(1949) Dc

University of Manchester, Mathematical Laboratory, Manchester, England / *C

Has automatic electronic digital computer built by Ferranti Electric Ltd. / RPa Ss(8) Se(1947) Dc

University of Michigan Willow Run Laboratories, Willow Run Airport, Ypsilanti, Mich. / NOrmandy 3-1511 / *C 58

Has general purpose digital and analog computers, electronic and electromechanical computers, and simulators, including Librascope LGP 30, IBM 604, desk calculators, and a modern large scale analog computer. Computing services, including analysis and computation using these types of computers / RCPa Ls(600) Se(1946) DAC

University of Rochester, Computing Center, Rochester 20, N.Y. / Gr 3-3000 / *C 59

Computing services; IBM 650 system / RCa Ss(7) Se(1956) Dc

University of Sydney, Electrical Engineering Dept., Sydney, N.S.W., Australia / MWO 522, 242 / *C 58

Research and design of analog computers, digital differential analyzers, digital computers, servomechanisms, automatic control machinery / RCa ?s ?e DAC

University of Toronto, Computation Centre, Toronto Ontario, Canada / Walnut 3-1327 / *C 57

Computing services. Programming and consulting services. Time available on Tape IBM 650 / RCPa Ss Me DAc

V

Valor Instruments, Inc. (formerly Valor Electronics Inc.), 13214 Crenshaw Blvd., Gardena, Calif. / FA 1-2280 / *C 59

Transistorized instruments (power supplies; voltage regulators; special instruments), and magnetic components (lumped constant delay lines, pulse transformers, toroidal inductors, shift register elements) / RMSCa Ss(42) Se(1954) Ic

Vari-Ohm Corp., Sunrise Highway, Amityville, N.Y. — no response '58, '59

Vari-Typer Corp., subsidiary of Addressograph-Multi-graph Corp., 720 Frelinghuysen Ave., Newark 12, N.J. / Bielow 2-2600 / *C 58

Vari-typer that composes type for reproduction by any duplicating method / RMSa Ls(900) Me(1933)

Vaucanson, 11 Rue du Surmelin, Paris 20e, France / MENilmontant 83-40 / *C 57

Calculating machines / RMSa Ms(400) Le(1896) Dc

Vectron, Inc., 1635 Trapelo Rd., Waltham 54, Mass. / TWinbrook 3-8700 / *C 58

Commercial microwave spectrum analyzers; custom design, manufacturing, of precision electrical and electro-mechanical equipments; special computers / RMSCa Ms(200) Se(1949) Ic

Veeder-Root Inc., 70 Sargeant St., Hartford 2, Conn. / JAcKson 7-7201 / *C 59

Analog-to-digital converters; electronic counters; mechanical and electro-mechanical counting devices for all counting requirements / RMSCa Ls(1200) Me(1928) Ic

Vernistat Div. of the Perkin-Elmer Corp., 771 Main Ave., Norwalk, Conn. / Victor 7-2441 / *C 59

Precision AC potentiometers; variable ratio transformers and adjustable function generators / RMSa Ss(30) Se(1954) Ic

Vickers Inc., Electric Products Div., 1815 Locust St., St. Louis 3, Mo. / CEntal 1-5830 / *C 59

Control equipment, magnetic particle clutches, magnetic amplifiers, automatic controls, rectifiers and semiconductors, nuclear instrumentation components and systems; electrical converters, diodes, frequency and servo multipliers, power supplies / RMSa Ms(500) Se(1948) Ic

Victor Adding Machine Co., 3900 No. Rockwell St., Chicago 18, Ill. / KEystone 9-8210 / *C 57

Digital computers and related integrated data processing systems. Digit-matic plain or calculating printers. Adding machines, etc. / RMSa Ls(2200) Le(1918) Dc

Visirecord, Inc., 54 Railroad Ave., Copiague, L.I., N.Y. / Amityville 4-4900 / *C

Filing systems for all types of common language tapes in computers. Control on edge-punched cards in conjunction with mechanical and electronic business machines / RMSa ?e Ms(300) Ic

Vitramon, Inc., P.O. Box 544, Bridgeport 1, Conn. / *C 59

Computer type capacitors / RMSa ?s ?e Ic

W

Waldorf Instrument Corp., Park Ave., Huntington, N.Y. — no response '58, '59

THE WALKIRT CO., 141 West Hazel St., Inglewood 3, Calif. / OR 8-4814 / *C 59

Plug-in pulse circuit packages; complete counters, multivibrators, amplifiers, gates, triggers, pulse generators, etc. / RMSa Ss(30) Se(1948) Ic

Wes Kirchoff, Pres. / Jim A. Robinson, Chief Engr.

Wang Laboratories, 37 Hurley St., Cambridge 39, Mass. / TRowbridge 6-1925

Magnetic delay-line memory units. Digital signal generators. Multiple scalars. Static magnetic memory systems and other devices. Shaft digitizing coders / RCMSa Ss(8) Se(1951) Dlc

Ward Leonard Electric Co., 90 South St., Mt. Vernon, N.Y. / *C 59

Electric control devices: resistors, relays, rheostats, contactors, etc. / RMSa Ls(1000) Le(1892) Ic

The George Washington University, Logistics Research Project, 707 22nd St., N.W., Washington 7, D.C. / STerling 3-4539 / *C 59

Research in logistics data processing under contract with the Office of Naval Research; ONR logistics computer / RCPa Ss(30) Se(1950) Dc

Watson Scientific Computing Laboratory, 612 West 116 St., New York, N.Y. / MOnument 6-9600 / *C 58

The pure science department of International Business Machines Corp. Computing and consulting service using: simultaneous linear equation solver; astronomical plate measuring machine; IBM punch card machines, and computers. Research and instruction / RCPa Ms(100) Me(1945) DAC

Wayne-George Corp., 1117 Commonwealth Ave., Boston 15, Mass. / STadium 2-3737 / *C 59

Analog to digital converters and associated data handling equipment; special purpose digital computers / RMSCa Ms(70) Se(1956) DAC

Wayne State University, Computing Center, 4841 Cass, Detroit 2, Mich. / TE 1-0703 / *C 59

Computing services using IBM 650 / RCa Ss(20) Se(1950) DAC

Jervis B. Webb Co., 8951 Alpine Ave., Detroit 4, Mich. / WE 3-8010 / *C 58

Conveyor engineering and manufacturing. Servomechanisms, automatic control machinery, automatic materials handling machinery, pneumatic, hydraulic and electrical testing equipment / RMSCa Ms(400) Le(1919) SCMc

Westgate Laboratory, Inc., 506 So. High St., Yellow Springs, Ohio / ROckwell 7-7375 / *C 59

Research, development, prototype, and small lot production in electronics, physics, optics and photography; simulators and missile guidance equipment, digital computing and consulting services, controls, coordinate transform, plotters / RMSCa Ss(25) Se(1956) DClc

WESTINGHOUSE ELECTRIC CORP., AIR ARM DIVISION, P.O. Box 746, Baltimore 3, Md. / Southfield 1-1000 / *C 59

Research, development, design, and production of airborne and spaceborne electronics systems and components for the armed forces and aircraft industry, including: attack armament, missile guidance, reconnaissance, defensive armament, space systems and components, including airborne and spaceborne computers / RMSa Ls(3,400) Se(1951) DAic

Dr. Patrick Conley, Div. Mgr. / N. V. Petrou, Eng. Mgr.

Westinghouse Electric Corp., Analytical Department, East Pittsburgh, Pa. / Express 1-2800 / *C 59

Computing service (digital and analog) using: DC and AC calculating boards (network analyzers); ANACOM computer (passive element transient analyzer); electronic differential analyzer; IBM Type 704. Dynamic analyses of physical systems, including transient phenomena in mechanical and electrical systems; servomechanisms, and regulating systems; nuclear reactor calculations; field mapping; operations research / RMSCPa Ls(corporation, 100,000; dept., 50) Se(dept., 1952) DASc

Westinghouse Electric Corp., Semiconductor Dept., Youngwood, Pa. / WALKer 5-7272 / *C 59

Semiconductor products, silicon rectifiers, silicon

nal Busi-
consulting
a solver;
M punch
and in-
Ac
ve., Bos-
ted data
tal com-
41 Cass,
a Ss(20)
4, Mich.
Servo-
automatic
hydraulic
Ms(400)
Yellow
small lot
and pho-
e equip-
services,
RMSCa
R ARM
/ South-
action of
ems and
ircraft in-
ile guid-
at, space
orne and
Se(1951)
Petrov,
partment,
0 using:
alyzers);
transient
er; IBM
systems,
tical and
regulating
mapping;
poration,
Sc
Dept.,
silicon
une, 1959

and germanium transistors and diodes / RMSa Ls
(650) Se(1956) Ic

Weston Instruments, Div. of Daystrom, Inc., 614 Fre-
linghuysen Ave., Newark 12, N.Y. / BIGelow 3-4700
/ *C 59

Indicating, recording, and controlling instruments;
product resolvers, input-output devices, multipliers,
relays, resistors / RMSa ?s Le(1888) Ic

Westrex Corp., 111 Eighth Ave., New York 11, N.Y. /
CH 3-2300 / *C 59

Magnetic recording equipment and associated items.
Magnetic heads / RMSCa Ls(1400) Me(1926) Ic

Westronics, Inc., 3605 McCart, Ft. Worth, Texas /
WA 3-8211 / *C 59

Research and manufacturing in electronic instru-
mentation; recording potentiometers, null-balance,
strip charts / RMSa Ms(50) Me(1945) SIc

Wharf Engineering Lab., Fenny Compton, Warwick-
shire, England / 230 / *C 59

Magnetic drums, magnetic heads, tape readers, tape
punches / RMSCa Ss(10) Se(1948) Ic

Wheeler Electronic Corp., Subsidiary of Sperry Rand
Corp., 150 E. Aurora St., Waterbury 20, Conn. /
PLaza 4-5191 / *C 59

Transformers, communication systems (computer
types), regulated power supplies, cable assemblies
/ RMSa Ls(500+) Le(1909) Ic

Wheelock Signals, Inc., 273 Branchport Ave., Long
Branch, N.J. / CApital 2-6880 / *C 59

Industrial and military electro-magnetic relays /
RMSa Ms(200) Le(1922) Ic

WHITEWATER ELECTRONICS, INC., ELECTRO-
METRIC DIV., 136 W. Main St., Whitewater, Wisc.
/ Whitewater 986 / *C 59

Computer components; delay lines / RMSa Ms(85)
Se(1955) Ic

A. C. Thompson, Pres. / E. J. Klamt

THE WHITNOR MANUFACTURING COMPANY,
Route 6 and New Britain Ave., Farmington, Conn. /
ORchard 7-2607 / *C 59

Magnetic storage drums and disks, with speeds from
60 rpm to 30,000 rpm and higher, eccentricities
under fifty millionths (.00005") T.I.R. Specialists
in the design and manufacture of precision rotary
machinery including computer drums, optical scan-
ners, glass fiber spinners, and high performance
precision spindles for boring, milling, grinding
and drilling / RMSa Ms(50) Me(1954) Ic
Robert B. Darlington, VP and Sales Mgr.

Wiancko Engineering Co., 255 North Halstead Ave.,
Pasadena, Calif / El 5-7186 / *C 59

Data acquisition systems; dynamic measuring in-
strumentation; pressure, acceleration, etc., pickups
/ RMSCa Ms(300) Me(1946) Ic

Wilec Electronics, Inc., 53 Water St., South Norwalk,
Conn. / TEmple 8-7551 / *C 59

Special indicator tubes for computers, special-pur-
pose tubes for industry and government / RMSCa
Ss(10) Se(1958) Ic

Winchester Electronics, Inc., Willard Rd., Norwalk,
Conn. / TEmple 8-8433 / *C 59

Electronic connectors, terminals, hoods, tube sock-
ets, printed circuit connectors / RMSa Ls(600)
Me(1942) Ic

Wright Aeronautical, Wood Ridge, N.J. / PRescott
7-2900 / *C 56

Data processing machines, components / RMSa DIc

Wright Engineering Co., 180 E. California St., Pasadena,
Calif. / RYan 1-8488 / *C 59

Computer in-put out-put devices; switches, shaft
encoders, analog to digital encoders and decoders,
magnetic drums and heads / RMSa ?s ?e AIc

The Wright Line, Inc., 160 Gold Star Blvd., Worcester
6, Mass. / *C 59

Data processing accessory equipment and tape han-
dling and storage equipment / RMSa Ms(300)
Me(1934) Ic

Y

The Yale & Towne Manufacturing Co., Powdered Metal
Products Div., 9335 W. Belmont Ave., Franklin Park,
Ill. / NAtional 5-8585 / *C 58

Magnetic and ferrite cores; magnets / RMSa Ms
(300) ?e Ic

Z

Zator Co., 79 Milk St., Boston 9, Mass. / LIberty 2-4624
/ *C

Digital equipment and systems for coding, filing,
and finding information (Zato coding systems).
High-speed selectors for notched cards. Methods
for use of digital computing machines to recover
information / RCSa Ss Se(1947) Ic

Zuse Kommandit-Gesellschaft, Kreis Hunfield, Neu-
kihchen, West Germany / — / *C 57

Relays and electronic digital computers / RMSa
Ms(180) Se(1949) Dc



Part 2 of
THE COMPUTER DIRECTORY AND BUYERS' GUIDE, 1959
the June, 1959, issue of "Computers and Automation"

BUYERS' GUIDE FOR THE COMPUTER FIELD: PRODUCTS AND SERVICES FOR SALE OR RENT

(Cumulative, information as of May 1, 1959)

The purpose of this roster "The Buyers' Guide for the Computer Field: Products and Services for Sale or Rent" is to give information about the existence and in many cases the properties of every product or service in the computer field that is offered for sale or rent and that we have been able to learn something about. This in the fourth cumulative edition of this roster, containing approximately 2740 entries.

Kinds of Entries. There are three kinds of entries in this list: expanded bold face entries; cross reference entries and ordinary entries. An expanded bold face entry contains or should contain the following information:

Name of supplier and address / name or identification of product or service / DESCR: a brief description of the product in about 20 to 50 words, or more / USE: how it is used / price range, and whether for sale or rent.

Every entry is subject to editing. These entries are set in bold face type, and a nominal charge of \$10 is requested for printing them, except that a display advertiser receives a number of such entries free depending on the amount of display advertising.

Ordinary entries consist of just the name of the organization, listed under the product class.

Cross-reference entries show that a product listed under one product heading is described more fully under another product heading.

Corrections. We have tried to make each entry correct to the extent of information in our possession. But it is inevitable that at least some errors have occurred, and we shall be glad to publish corrections.

Questionnaire. Nearly all the entries in this roster have been derived from answers to questionnaires which we sent out in February and March to over 700 suppliers in the computer field. The expanded entries have been derived mainly from answers given on the "Product Entry Form," which follows:

Product Entry Form
for
THE COMPUTER DIRECTORY and
BUYERS' GUIDE, 1959

THIS IS THE INFORMATION WE WANT
FROM YOU:

1. Name or identification of product (or service)?
2. Brief description (20 to 50 words):
3. How is it used?
4. What is the price range?
5. Under what headings should it be listed?

HERE IS THE INFORMATION WE PUBLISHED
LAST YEAR (or have in our file):

Entry:

..... (Note: The number at the
..... end of the entry is the
..... 1958 heading number —
..... see the list on the reverse
..... side.)

Additions,

changes,

remarks?

Organization

Address

Filled in by..... Title.....

Date

When filled in, please send this form to Computers and Automation (address above), with \$10.00 requested charge for an expanded bold-face entry, on or before APRIL 25, 1959.

() \$10.00 enclosed

LIST OF HEADINGS

As a guide to the products and services offered in the computer field, please refer to the following list of 186 headings under which products and services are classified. There is overlapping among these headings; it may be necessary or desirable to look under more than one heading.

A: Adding Machines	— A1
Addressing Machines	— A2
Amplifiers	— A3
— Magnetic	— A4
Analog Computers (SEE Computers, Analog)	
Automatic Assembly Equipment	— A5
Automatic Control Equipment	— A6
B: Boards — Plotting	— B1
— Plug	— B2
— Strip Type	— B3
Bobbins, Coil Winding	— B4
Breadboard Kits	— B6
C: Cable	— C1
Cable Assemblies	— C2
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Transistors	— T14
— Germanium	— T15
— Silicon	— T16
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ROSTER

A1. ADDING MACHINES

Addo-x, Inc.
R. D. Allen Business Machines, Inc.
American Automatic Typewriter Co.
Burroughs Corp.
Comptometer Corp.
Fabrica Addizionatrice Italiana S.S.
Facit, Inc.
Litton Industries, Inc.
Monroe Calculating Machine Co.
Olivetti Corp. of America
Remington Rand Div. of Sperry Rand Corp.
Underwood Corporation — see I3

A2. ADDRESSING MACHINES

Elliott Addressing Machine Co.
Lanston Industries, Inc.
National Data Processing Corporation

A3. AMPLIFIERS

Aeronutronic Systems, Inc.
Airpax Electronics Co., Seminole Div.
Andersen Laboratories, Inc.
Brush Instruments
Centralab
Di/An Controls, Inc.
Diehl Mfg. Co.
Edin, a Div. of Epsco, Inc.
Electrol, Inc.
Electro Instruments, Inc.
Engineered Electronics Co.
Feedback Controls, Inc.
Ferranti-Packard Electric Ltd.
General Electric Co., Computer Dept.
Hewlett-Packard Company
Industrial Control Co.
Ketay Dept. Norden Division United Aircraft Corp.
Librascope, Inc.
Link Aviation, Inc. — see C23
Magnetics Research Co., Inc.
Minneapolis-Honeywell Regulator Co., Boston Division
F. L. Moseley Co.
Ortho Filter Corp.
Southwestern Industrial Electronics Co.
Weston Instruments
Wiancko Engineering Co.

A4. MAGNETIC AMPLIFIERS

Airpax Electronics Co., Seminole Div.
American Electronics, Inc.
American Research & Mfg. Corp.
Bendix Aviation Corp., Eclipse-Pioneer Div.
Consolidated Electrodynamics Corp.
Control Data Corp.
Epsco Components
Federal Telephone and Radio Co.
Feedback Controls, Inc.
Gulton Industries, Inc.
Johnson Electronics Inc.
John Oster Mfg. Co., Avionic Div.
PACIFIC MAGNETIC CORP., Romoland, Calif. / PMC logic type magnetic amplifiers / DESCR: ultra sensitive, universal magnetic logic switching device with from one to eight control gates. Depending on model, these units weigh from 10 to 29 ounces, provide continuous power output of from 10 to 60 watts, with a response time of less than 2.5ms. / USE: wherever one or more conditions must be met before switching occurs / \$80 to \$140 (less in quantities) / A4
Polyphase Instrument Co.

Sangamo Electric Co.
F. W. Sickles Division
Sigma Instruments Inc.
Specialties, Inc.

A5. AUTOMATIC ASSEMBLY EQUIPMENT

Airpax Electronics Co., Seminole Div.
Automation Engineering Laboratory
The Foxboro Co.
General Cybernetics Corp.
General Electric Co., Computer Dept.
GPS Instrument Co., Inc.
Shallcross Mfg. Co.

A6. AUTOMATIC CONTROL EQUIPMENT

Aeronca Mfg. Corp.
Airpax Electronics Co., Seminole Div.
Allen-Bradley Co.
Armour Research Foundation, Illinois Institute of Technology
Atlas Precision Products Co.
The Austin Co., Special Services Division
Babcock Radio Engineering, Inc.
Bendix Aviation Corp., Bendix-Pacific Div.
Bendix Aviation Corp., Eclipse-Pioneer Div.
BENDIX AVIATION CORP., RESEARCH LABORATORIES DIV., P.O. Box 5115, Detroit 35, Michigan / automatic control equipment / A6
Canadian Westinghouse Co. Ltd.
Clary Corp.
Coleman Engineering Co.
Computing Devices of Canada Ltd.
Consolidated Electrodynamics Corp.
Control Data Corp.
Cook Electric Co.
Curtiss-Wright Corp., Electronics Div.
Dennison Mfg. Co.
Eagle Signal Corp.
Feedback Controls, Inc.

FERRANTI ELECTRIC, INC., 95 Madison Ave., Hempstead, N.Y. / precision measuring equipment / DESCR: Produces digital measurement of position using diffraction grating reference. Accuracies to 0.00004". Equipment includes gratings, optical unit, and counters / USE: metrology; analyses of photographic records / \$6,000 to \$7,000 for two axes system / A6

Ferranti-Packard Electric Ltd.
General Automatics, Inc.
GPE Controls, Inc.
Gulton Industries, Inc.
The W. A. Haydon Company
Hughes Research & Development Laboratories
Industrial Nucleonics Corporation
International Resistance Company
International Telephone & Telegraph Corp.
Kidde Ultrasonic & Detection Alarms, Inc.
Leeds & Northrup Company
Lewyt Manufacturing Corporation
Librascope, Inc.
Litton Industries, Inc.
The W. L. Maxson Corp.
Norden Division of United Aircraft Corp.
North Electric Company
Nuclear Development Corp. of America
Opad Electric Co.
Ramo-Wooldridge
Servo Corp. of America

Stromberg-Carlson, a Division of General Dynamics Corp.
Taylor Instrument Co.
The Teller Company
THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / automatic control equipment / A6
Trio Laboratories, Inc.
University of Sydney
Jervis B. Webb Co.

B1. BOARDS, PLOTTING

Accurate Electronics Corp.
Aero Electronics Co.
Benson-Lehner Corp.
Ferranti-Packard Electric Ltd.
Link Aviation, Inc. — see C2
Telectro Industries Corp.

B2. BOARDS, PLUG

Accurate Electronics Corp.
Cambridge Thermionic Corporation

B3. BOARDS, PLOTTING, STRIP TYPE

Accurate Electronics Corp.
Cambridge Thermionic Corporation
Cinch Manufacturing Corp.
Link Aviation, Inc. — see C2

B4. BOBBINS, COIL WINDING

Acroscope Engineering Co.
Advanced Electronics, Inc.
Alden Products Co.
Hydro Molding Co., Inc.

B6. BREADBOARD KITS

Di/An Controls, Inc.
Ferranti-Packard Electric Ltd.
Helipot Division of Beckman Instruments, Inc.

C1. CABLE

Jefferson Electronic Products Corp.
Royal Electric Corp.

C2. CABLE ASSEMBLIES

Advanced Electronics, Inc.
Alden Products Co.
Burdny Corporation, Omaton Div.
California Technical Industries Div. of Textron Inc.
Jefferson Electronic Products Corp.
LINK AVIATION, INC., Binghamton, N.Y. / Cables-Circuits / Complete line of computer type cable assemblies, printed and wired circuits, canned and potted assemblies for analog and digital computer applications / C2
Superex Electronics Corp.
Telectro Industries Corp.
Wheeler Electronic Corp.

C3. CAMERAS

Canadian Applied Research Ltd.
The Geotechnical Corp.
Gordon Enterprises
Hewlett-Packard Company
Librascope, Inc.

C3A. CAMERAS, DATA RECORDING
Alden Electronic and Impulse Recording Equipment Co.

Avco Mfg. Corp.
Benson-Lehner Corp.
Canadian Applied Research Ltd.
Century Electronics & Instruments, Inc.
The Geotechnical Corp.
Gordon Enterprises
Librascope, Inc.
Radiation Counter Laboratories, Inc.
Richardson Camera Company, Inc. — see C2A
Traid Corp.

C4. CAPACITORS (Computer Types)

Aerovox Corp.
Allen-Bradley Co.
AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / capacitors / DESCR: computer type capacitors / USE: computer circuitry / C4
Centralab
Condenser Products Div. New Haven
Clock & Watch Co.
Corning Glass Works
Electronic Fabricators, Inc. (EFCON)
The Electro-Motive Manufacturing Co., Inc.
Electronic Fabricators, Inc.
Fansteel Metallurgical Corp.
Franklin Electronics, Inc.
General Electric Co., Capacitor Div.
Gulton Industries, Inc.
Hammarlund Mfg. Co., Inc.
Ohmite Mfg. Co.
Plastic Capacitors, Inc.
Sangamo Electric Co.
Schweber Electronics
Southern Electronics Corp.
Sprague Electric Co.
Texas Instruments, Inc.
Transitron Electronic Corp.
U.S. Semiconductor Products, Inc.
Vitramon, Inc.

C5. CARDS (SEE ALSO PUNCH CARDS)

C6. CARDS, PUNCH

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / CA-1 punched card adapter / DESCR: adapts IBM 026 reader-punch for use with Bendix G-15 general purpose digital computer (see C24) / USE: punched card input-output / \$2530 sale, \$100 per month lease / C6

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / CA-2 punched card adapter / DESCR: enables G-15 computer to operate with up to three IBM card readers, punches and tabulators at 100 cards or lines/minute. Handles full 80 columns of mixed alphanumeric and special character data / USE: punched card input-output for scientific and data processing use / \$19,500 sale, \$585 per month lease / C6

E-Z Sort Systems, Ltd.
National Physical Laboratory, Mathematics Division
Remington Rand Div. of Sperry Rand Corp.

C7. CARDS, MAGNETIC

THE COMPUTER DIRECTORY and BUYERS' GUIDE, 1959

C8. CHASSIS, METAL

Alden Products Co.

C9. CIRCUITS, ARITHMETICAL (FOR DIGITAL COMPUTERS)

Di/An Controls, Inc.
Ferranti-Packard Electric Ltd.
General Electric Co., Computer Dept.
General Mills, Inc.
Hoover Electronics Company
Link Aviation, Inc. — see C2 and C24
Ransom Research

SYLVANIA ELECTRONIC SYSTEMS, A Division of Sylvania Electric Products, Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / Plug-in packages / DESCR: Highly modular plug-in assemblies, a logic board which receives up to 12 "element" (printed circuit with components mounted) cards / USE: building block for design and construction of logic sections / Prices vary depending on type / C9

The Walkirt Co. — see C10

C10. CIRCUITS, COMPUTER, PACKAGED

AERONUTRONIC SYSTEMS, INC. (a subsidiary of Ford Motor Co.), COMPUTER DIVISION, Ford Road, Newport Beach, Calif. / Digital computer solid state printed circuit packages / DESCR: Flip-flops, diode logic boards, read and write amplifiers, blocking oscillators. Frequencies to 500 KC. Rugged, high-density packaging. Low power consumption. Insensitive to variations in environment, circuit elements and power supplies. Employ ultra-reliable pulse gated techniques. Special circuit packages designed to customer needs / USE: in digital computer equipment, for both ground (commercial and military) and airborne use / price dependent on type and quantity / C10

Airtronics, Inc.
Avion Division, ACF Industries, Inc.
Centralab
Computer Control Co., Inc.
Di/An Controls, Inc.
Digital Equipment Corp.
Thomas A. Edison Industries
Electronics Research Associates, Inc.
Ferranti-Packard Electric Ltd.
General Electric Co., Computer Dept.
Harvey-Wells Electronics, Inc. — see C31
Librascope, Inc.
Link Aviation, Inc. — see C2, C23, and C24
Ransom Research
Rese Engineering, Inc.
Short Brothers & Harland Ltd.

THE WALKIRT CO., 141 W. Hazel St., Inglewood 3, Calif. / Plug-in pulse circuit packages / DESCR: generally single-tube and/or transistor circuit stages, encapsulated in resin, plug-in form; complete counters, multivibrators, amplifiers, gates, triggers, pulse generators, etc. / USE: as a complete circuit stage in digital computing equipment / \$8 to \$20 per stage / C10

C11. CIRCUITS, LOGICAL (FOR DIGITAL COMPUTERS)

Airtronics, Inc.
Avco Mfg. Corp.
Bendix Aviation Corp., Bendix-Pacific Div.
Computer Control Co., Inc.
Di/An Controls, Inc.
General Electric Co., Computer Dept.
General Mills, Inc.
Link Aviation, Inc. — see C2 and C24
Minneapolis-Honeywell Regulator Co., Florida Inertial Guidance Center
Ransom Research
Rese Engineering, Inc.

SYLVANIA ELECTRONIC SYSTEMS, A Division of Sylvania Electric Products, Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / Plug-in packages / DESCR: Highly modular plug-in assemblies, a logic board which receives up to 12 "element" (printed circuit with components mounted) cards / USE: building block for design and construction of logic sections / Prices vary depending on type / C11

The Walkirt Co. — see C10

C12. CIRCUITS, PLUG-IN

Airflyte Electronics Co.
Airtronics, Inc.
Avco Mfg. Corp.
Avion Division, ACF Industries, Inc.
Bendix Aviation Corp., Bendix-Pacific Div.
C G Electronics Corp.
Computer Control Co., Inc.
The Daven Co.
Di/An Controls, Inc.
Digital Equipment Corp.
Engineered Electronics Co.

ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Miniature Plug-In Encapsulated Circuit Assemblies / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / C12

General Electric Co., Computer Dept.
Kay Electric Co.
Lewyt Manufacturing Corporation
Link Aviation, Inc. — see C2 and C24
Panellit, Inc.
Ransom Research
Rese Engineering, Inc.
Stromberg-Carlson (West Coast)
Superex Electronics Corp.

SYLVANIA ELECTRONIC SYSTEMS, A Division of Sylvania Electric Products, Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / Plug-in packages / DESCR: Highly modular plug-in assemblies, a logic board which receives up to 12 "element" (printed circuit with components mounted) cards / USE: building block for design and construction of logic sections / Prices vary depending on type / C12
The Walkirt Co. — see C10

C13. CIRCUITS, POTTED

Airflyte Electronics Co.
Airtronics, Inc.
Avco Mfg. Corp.
C G Electronics Corp.
The Daven Co.

Ferranti-Packard Electric Ltd.
Link Aviation, Inc. — see C2 and C23
Polyphase Instrument Co.
Stromberg-Carlson (West Coast)
Sunshine Scientific Instrument Co.
The Walkirt Co. — see C10

C14. CIRCUITS, PRINTED

American Printed Circuits Co., Inc.
Avco Mfg. Corp.
Avion Division, ACF Industries, Inc.
Bendix Aviation Corp., Bendix-Pacific Div.

C G Electronics Corp.
Cinch Manufacturing Corp.
Consolidated Electrodynamics Corp.
Corning Glass Works
Electralab, Inc.

Ferranti-Packard Electric Ltd.
General Mills, Inc.
Gulton Industries, Inc.
Hoover Electronics Company
Lewyt Manufacturing Corporation
Link Aviation, Inc. — see C2, C23, and C24

Litton Industries, Components Div.
Mellon Institute of Industrial Research,
University of Pittsburgh
Panellit, Inc.
Sprague Electric Co.
Suprex Electronics Corp.

SYLVANIA ELECTRONIC SYSTEMS,
A Division of Sylvania Electric Products, Inc., Data Systems Operations, 189 B St., Needham 94, Mass. / Plug-in packages / DESCR: Highly modular plug-in assemblies, a logic board which receives up to 12 "element" (printed circuit with components mounted) cards / USE: building block for design and construction of logic sections / Prices vary depending on type / C14

Techniques, Inc.
Technitrol Engineering Company

C15. CLUTCHES

Flight Research, Inc.
Technology Instrument Corp.

C16. CLUTCHES, MAGNETIC

Erco Plant — Nuclear Products
Ferranti-Packard Electric Ltd.
Helipot Division of Beckman Instruments, Inc.
Sterling Precision Corp.
Vickers, Inc.

C17. COATINGS

Columbia Technical Corp.
Ferranti-Packard Electric Ltd.

C18. COATINGS, CONDUCTIVE

Acheson Colloids Co.

C19. COATINGS, PROTECTIVE

Columbia Technical Corp.

C20. COATINGS, SALT SPRAY RESISTANT

Columbia Technical Corp.
Gulton Industries, Inc.

C21. COILS (COMPUTER TYPES)

Advanced Electronics, Inc.
Coilcraft, Inc.
Comar Electric Co.
Electronic Transformer Co., Inc.

El-Rad Mfg. Co.

Gulton Industries, Inc.
Johnson Electronics Inc.
National Moldite Co.
Polyphase Instrument Co.
Sterling Precision Corp.
Sunshine Scientific Instrument Co.
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations
Technitrol Engineering Company
Wheeler Electronic Corp.

C22. COMMUNICATIONS SYSTEMS (COMPUTER TYPES)

Bendix Aviation Corp., Bendix-Pacific Div.

J. H. Bennett and Co.

Control Data Corp.

Corbin Corp.

Daystrom Instrument, Div. of Daystrom, Inc.

Federal Telephone and Radio Co.

Ferranti-Packard Electric Ltd.

The Geotechnical Corp.

Litton Industries, Inc.

National Co., Inc.

National Data Processing Corporation

Packard Bell Computer Corp.

The Standard Electric Time Co.

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

Wheeler Electronic Corp.

C22A. COMPUTERS

American Electronics, Inc.

AUTONETICS, a Div. of No. American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / General purpose computers (see also C24) / C22A

Canadian Westinghouse Co. Ltd.

Computer Control Co., Inc.

Computing Devices of Canada Ltd.

Control Data Corp.

Control Instrument Co.

JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y. / Computers / C22A

Electronic Contractors, Inc.

General Electric Co., Light Military Electronics Dept.

General Mills, Inc.

GPE Controls, Inc.

International Computers & Tabulators Limited

Librascope, Inc.

Logabax S.A.

Orradio Industries

Radio Corp. of America, Electronic Data Processing Division — see D1

Royal McBee Corp. — see C24

Servo Corp. of America

Sylvania Electric Products, Inc. (Waltham)
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / computers / C22A

Underwood Corporation — see D1

U.S. Air Force, Cambridge Research Center
Westinghouse Electric Corp., Air Arm Division

C23. COMPUTERS, ANALOG

Aero Electronics Co.

American Hydromath Corp.

Applied Science Corp. of Princeton

Atlas Precision Products Co.

Automatic Signal Division, Eastern Industries, Inc.

Automation Research and Design Associates

AUTONETICS, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / analog computers / C23

Avion Division, ACF Industries, Inc.

Avion Division of ACF, Erco Div.

Beckman Instruments, Inc., Berkeley Div.

BENDIX AVIATION CORP., RESEARCH LABORATORIES DIV., P. O. Box 5115, Detroit 35, Michigan / analog computers / C23

Birkbeck College

Burlingame Associates, Ltd.

Canadian Westinghouse Co. Ltd.

C G Electronics Corp.

Colorado Research Corp.

Computer Equipment Corp.

Convair-San Diego-Electronics

Corbin Corp.

Daystrom Instrument, Div. of Daystrom, Inc.

Dian Laboratories, Inc.

Digital Service Labs

Donner Scientific Co.

Dorsett Laboratories, Inc.

Electro-Measurements, Inc.

Electronic Associates, Inc.

The English Electric Co. Ltd.

Erco Plant — Nuclear Products

Farrand Optical Co., Inc.

Feedback Controls, Inc.

Ferranti-Packard Electric Ltd.

Ford Instrument Co.

The Foxboro Co.

General Automatics, Inc.

General Electric Co., Computer Dept.
General Electric Co., Light Military Electronics Dept.

The Geotechnical Corp.

Goodyear Aircraft Corp.

GPE Controls, Inc.

GPS Instrument Co., Inc.

Haller, Raymond, & Brown, Inc.

Hall-Scott, Inc.

Heath Co.

Jet Propulsion Laboratory

Kearfott Co., Inc.

Leeds & Northrup Company

Harry Levinson Co.

Lewyt Manufacturing Corporation

Librascope, Inc.

LINK AVIATION, INC., Binghamton, N.Y. / Analog Computers / Standard modules for assembly of both a.c. and d.c. Special Purpose Analog Computers. These modules include usual computing control and execution circuits plus off-the-shelf type Linear Interpolators and multi-variable Universal Analog Function Generators / C23

The Magnovox Co.

The W. L. Maxson Corp.

Mid-Century Instrumatic Corp.

Minneapolis-Honeywell Regulator Co., Florida Inertial Guidance Center

National Bureau of Standards, Data Processing Systems Division

Norden Division of United Aircraft Corp.

Northrup Aircraft, Inc.
Otis Elevator Co.
The Perkin-Elmer Corp.
George A. Philbrick Researches, Inc.
Phillips Controls Corp.
The Rand Corp.
Reeves Instrument Corp.
The Reflectone Corp.
Seismograph Service Corp.
Servomechanisms, Inc.
Short Brothers & Harland Ltd.
Société d'Electronique et d'Automatisme
Southwestern Industrial Electronics Co.
Sperry Rand Corp., Sperry Gyroscope Div.
The Standard Electric Time Co.
Sterling Precision Corp.
Strand Engineering Co.
Tammen & Denison, Inc.
U.S. Navy, Naval Research Lab.
University of Sydney

C24. COMPUTERS, DIGITAL

Aeronca Mfg. Corp.
Alwac Computer Div., El-Tronics, Inc.
Argonne National Laboratory
Arma Div., American Bosch Arma Corp.
Automatic Signal Division, Eastern Industries, Inc.
Automation Research and Design Associates
AUTONETICS, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / RECOMP II, portable, general purpose, transistorized digital computer / DESCR: serial, single address, internally stored program computer with 4096 word (40 bit) magnetic disk memory. Has built-in floating point, and 50 instruction command list. Alpha-numeric input-output through paper tape and typewriter / USE: general computational work for industrial, engineering, scientific and business type applications / \$86,000; Lease: \$3,000 per month / C24

Avco Mfg. Corp.
Avion Division, ACF Industries, Inc.
Bell Punch Co., Ltd.
BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / G-15 general purpose digital computer / DESCR: low-cost, internally programmed. Complete line of input-output equipment as well as digital differential analyzer accessory. Variety of programming systems for users with any amount of experience / USE: scientific, engineering and business computing and data processing / Domestic sale price \$49,500, lease \$1485/Mo. / C24

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / G-15 general purpose digital computer / DESCR: low-cost, internally programmed. Complete line of input-output equipment as well as digital differential analyzer accessory. Variety of programming systems for users with any amount of experience / USE: scientific, engineering and business computing and data processing / Domestic sale price \$49,500, lease \$1485/Mo. / C24

BENDIX AVIATION CORP., RESEARCH LABORATORIES DIV., P. O. Box 5115, Detroit 35, Michigan / digital computers / C24

Birkback College

Bull S. A. Compagnie des Machines—see D1

Burroughs Corp.

BURROUGHS CORP., ELECTRODATA DIVISION, 460 Sierra Madre Villa, Pasadena, Calif. / Burroughs E101 desk-size electronic digital computer / DESCR: 220-word magnetic drum memory; 11-column full keyboard; optional punched card and paper tape input unit; output on roll-documents, ledger forms, paper tape / USE: commercial applications, scientific, engineering computation / \$38,500 approx. or lease with option to buy / C24

BURROUGHS CORP., ELECTRODATA DIVISION, 460 Sierra Madre Villa, Pasadena, Calif. / Burroughs 220 automatic digital computer and auxiliary electronic data processing machines / DESCR: Expandable magnetic core storage of 2,000 to 10,000 computer words (10 decimal digits and sign); Paper Tape subsystem; CARDATRON full alphabetic, alphanumeric and special-character punched card subsystem; single and multiple DATAFILE magnetic tape subsystem (50,000,000 words auxiliary storage); high-speed printer, on line or off line operation, up to 1500 lines per minute; 93-command programming structure / USE: commercial applications, mathematical, scientific, engineering computation / \$375,000 to \$600,000 approx. or lease with option to buy / C24

BURROUGHS CORP., ELECTRODATA DIVISION, 460 Sierra Madre Villa, Pasadena, Calif. / Burroughs 205 automatic digital computer and auxiliary electronic data processing machines / DESCR: 4,000 words magnetic drum storage; 80 additional words quick-access drum storage; 10 decimal digits and sign; paper tape, CARDATRON complete alpha-numeric punch card operation, Single or DATAFILE multiple magnetic tape units; range 400,000 to 2,000,000 words auxiliary storage per unit / USE: business applications, mathematical, scientific, engineering computation / \$140,000 to \$250,000 approx. or lease with option to buy / C24

Canadian Westinghouse Co. Ltd.

Carbide and Carbon Chemicals Company-AEC

C G Electronics Corp.

Clary Corp.

Commonwealth Scientific and Industrial Organization

Computer Control Co., Inc.

Computer Equipment Corp.

Control Data Corp.

Corbin Corp.

DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 151 Needham St., Newton Highlands 61, Mass. / DATAMatic 1000 Electronic Data Processing System / DESCR: general purpose electronic data processing system consisting of high-speed, off-line input and output conversion sections,

high-capacity magnetic filing section utilizing 3-inch-wide magnetic tape and a central processing section consisting of input-output buffers, a high-speed magnetic core memory, arithmetic and control units and a central console / USE: all types of general accounting and business data processing operations, and general scientific applications / Monthly rental \$21,500 and up. Selling price \$985,000 and up / C24

DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 151 Needham St., Newton Highlands 61, Mass. / Honeywell 800 Transistorized Data Processing System / DESCR: medium-scale, general purpose, fully transistorized system. Internal operating speed is 30,000 three-address operations per second; magnetic tape speed is 96,000 decimal digits/second. 2 Magnetic-core memory capacity is 4,096 to 16,384 words. Works in both binary and decimal arithmetic, floating-point arithmetic is optional. Automatically controlled parallel processing permits up to 8 programs (business and/or scientific) in parallel operation. Reads, writes, and computes simultaneously. Small building-block units permit unlimited expansion / USE: business data processing and/or scientific computing / Monthly rental, \$11,000 and up; selling price, \$528,000 and up / C24

Daystrom Instrument, Div. of Daystrom, Inc.

DI/AN CONTROLS, INC., 40 Leon St., Boston 15, Mass. / Digital Computers / DESCR: special purpose digital computers, code and format converters, digital computer elements / C24

JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y. / Digital Computers / C24

Digital Service Labs

Educational Research Corp.

N. V. Electrológica

Elliott Bros. (London) Ltd.

The English Electric Co. Ltd.

Ferranti, Ltd.

Ferranti-Packard Electric Ltd.

Ford Instrument Co.

General Automatics, Inc.

General Electric Co., Computer Dept.

General Electric Co., Light Military Electronics Dept.

GPE Controls, Inc.

Haller, Raymond, & Brown, Inc.

Imperial College

Information Systems, Inc.

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 7090 Data Processing System / DESCR: Fully-transistorized version of the IBM 709, with improved synchronization of data transmission to and from input-output devices. Internal operation of the 7090 is five times faster than that of its predecessors. Memory consists of 32,768 words of core storage, a word consisting of 36 binary digits (equivalent to ten decimal digits). Up to eighty tape units, eight card readers, eight card punches, and eight printers

can be used with a 7090 system. The 7090 can read, write, and compute at the same time / USE: For both business and scientific problems / Monthly rental for a typical system, \$64,000. Selling price for a typical system, \$2,880,000. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 705 Data Processing System / DESCR: large-scale data processing system made up of inter-connected units, 20,000 positions of magnetic core "memory." Magnetic drums and magnetic tapes for additional storage. 8,400 additions or 1,250 multiplications per second. Optionally available: 40,000 positions of magnetic core storage / USE: primarily for business problems / Monthly rental for an average system \$35,000 and up. Selling price for an average system, \$1,713,000 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 705-III Data Processing System / DESCR: Includes ultra high-speed tape unit, IBM 729 Model 3, which can write at a rate of 62,500 characters per second, automatically checking validity and readability. Includes IBM 767 Data Synchronizer which controls magnetic tape input and output so that computer can read problem data, compute, and write answers simultaneously. Includes 40,000 positions of magnetic core memory, which can be enlarged to 80,000 positions by use of additional core storage / USE: primarily for business problems / Monthly rental, \$38,500 and up; selling price, \$1,925,000 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 704 Data Processing System / DESCR: large-scale data processing system made up of inter-connected units. The heart of the 704 system is its high-speed magnetic core storage. Any word in core storage can be located and put into use in only 12 millionths of a second. Core storage is supplemented by magnetic drums and magnetic tape. The 704 can perform 42,000 additions or subtractions or 5,000 multiplications or divisions of ten-digit numbers in one second / USE: primarily for solving complex scientific and engineering problems / Monthly rental for an average system \$44,000, and up. Selling price for an average system, \$1,994,000, and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 650 Data Processing System / DESCR: A medium-sized data processing system.

The units of the basic 650 are: a console unit which contains the magnetic drum "memory," a calculating unit and control console, a card read punch with which information is entered or extracted in punched card form, and a power unit. Up to 20,000 alphanumeric characters of storage for data and operating instructions are available with the basic 650. Additional units can be incorporated into a 650 system to provide magnetic tape input and output, printer output, paper tape input, magnetic core storage, and disk storage with random access and direct interrogation (IBM RAMAC 650). Disk files can be installed either singly or in any combination of up to four units, providing storage capacities of from 6 to 48 million digits / USE: the 650 is a general purpose system which is used for commercial and scientific computing problems / Monthly rental, \$3,750 and up. Selling price, \$182,400 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 607 Electronic Calculator / DESCR: A larger version of the IBM 604 consisting of the 607 calculating unit and either the 529 or 542 punching unit. The 529 operates at 100 cards per minute: the 542 operates at 200 cards per minute. The 607's memory capacity makes it possible to use intermediate calculated results as well as original data in solving a problem. The 607 can go through as many as 140 separate steps to obtain the solution to a single problem / USE: for business and scientific problems / Monthly rental, \$800-\$960 and up. Selling price, \$37,500-\$46,500 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 610 Automatic Decimal Point Computer / DESCR: A completely self-contained, mobile computer consisting of keyboard, typewriter, and main console. Input is from paper tape or keyboard. Output onto typewriter, tape, or cathode ray tube. May be programmed manually from the keyboard, and/or from two tape units, and/or from the control panel. Major design consideration is programming ease / USE: designed to be used by engineers and scientists on problems in which programming time and effort are a critical factor / Monthly rental, \$1,150. Selling price, \$55,000. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM RAMAC 305 (Random Access Method of Accounting and Control) / DESCR: A medium-sized business data processing system built around a disk memory unit which consists of 50 magnetic

metal disks. Data is entered onto or extracted from these disks by means of a rapidly-moving access arm. Disk units can be obtained with storage capacities of 5-million and 10-million digits. Any combination of two disk files may be used, providing storage capacities of 5, 10, 15, and 20-million digits. The RAMAC 305 has arithmetical and logical processing ability, punched card input, and both punched card and printed output. Optional features include punched paper tape input, remote printing stations, dual disk files, dual access arms, dual system control, and faster, more flexible printing / USE: continuous, or "in-line" accounting for all types of businesses / Monthly rental with punched card output, \$2,875 and up; with printed output, \$3,200 and up. Selling price with punched card output, \$167,850 and up; with printed output, \$189,950 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 7070 Data Processing System / DESCR: A fully-transistorized high-speed data processing system utilizing modular, or "building-block" construction. The 7070 ranges in capability between medium and large-scale systems, depending on the number and types of units included. Combining the various units results in three basic types of data processing systems—a card system, a magnetic tape system, and a tape-RAMAC system. Compared to a card 650 system with drum storage, the card 7070 has two-and-one-half times the storage capacity in its magnetic core "memory" and card input/output is at least twice as fast / USE: for business and scientific problems / Monthly rental for a typical system, \$20,350. Selling price for a typical system, \$900,500. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORP., DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 709 Electronic Data Processing System / DESCR: large-scale data processing system made up of inter-connected units. It can perform up to 42,000 additions or subtractions, or 5,000 multiplications or divisions, each second. The 709's magnetic core storage has a capacity of over 327,000 decimal digits. A Data Synchronizer which permits the system to read, write, and calculate simultaneously also is incorporated. The 709's magnetic core storage has a capacity of over 327,000 decimal digits. A Data Synchronizer which permits the system to read, write, and calculate simultaneously also is incorporated. The 709's tape units permit information being written on magnetic tape to be automatically checked for accuracy during the writing process / USE: commercial, scientific, engineering problems / Monthly rental for an average system, \$55,200 and up. Selling price for an average system, \$2,630,000 and up. All prices exclusive of tax / C24

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 604 Electronic Calculating Punch / DESCR: A general purpose calculator consisting of the 604 electronic calculating unit and either the 521 or 541 punching unit. The 521 operates at 100 cards per minute; the 541 operates at 200 cards per minute. The 604 reads problem data from IBM punched cards and can go through as many as 60 separate steps to obtain the solution to a single problem / USE: for business and scientific problems / Monthly rental, \$550-\$735. Selling price, \$25,900-\$34,000. All prices exclusive of tax / C24

Jet Propulsion Laboratory
Kearfott Co., Inc.
Kellogg Switchboard & Supply Co.
Lewyt Manufacturing Corporation
Librascope, Inc.

Librascope, Inc., Commercial Division
LINK AVIATION, INC., Binghamton, N.Y. / Digital Computers / Standard modules for assembly of data sorting, processing and computing operations. Production items include all types of logic and execution circuits, plus peripheral equipment like drum loaders, A to D and D to A Converters, Universal Digital Function Generators, etc. / C24

The Magnovox Co.
The W. L. Maxson Corp.
Minneapolis-Honeywell Regulator Co.,
Florida Inertial Guidance Center
Monroe Calculating Machine Co.
Moore School of Electrical Engineering
National Bureau of Standards, Data Processing Systems Division

THE NATIONAL CASH REGISTER CO., So. Main and K Sts., Dayton 9, Ohio / NCR 304 electronic data processing system / DESCR: transistorized magnetic tape data processor with 20,000 to 40,000 characters of magnetic core storage / USE: general-purpose business use / rental, \$17,000 and up per month; purchase, \$750,000 and up / C24

National Physical Laboratory, Control Mechanisms and Electronics Division

New London Instrument Co.

Norden Division of United Aircraft Corp.

Northrop Aircraft, Inc.

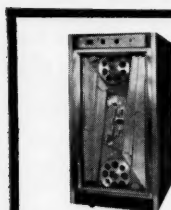
Packard Bell Computer Corp.

PHILCO CORP., GOVERNMENT & INDUSTRIAL DIV., 4700 Wissahickon Ave., Philadelphia 44, Pa. / Transac C-series / DESCR: airborne, high-speed general purpose digital computer for system control (completely transistorized drum; core memory) / USE: fire control, cruise control, navigation, flight control / \$100,000 up / C24

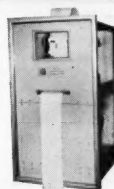
Phillips Control Corp.

Radio Corp. of America, Electronic Data Processing Division—see D1

RAMO-WOOLDRIDGE, A DIVISION OF THOMPSON RAMO - WOOLDRIDGE INC., 5500 West El Segundo Blvd., Los Angeles 45, Calif. / R-W

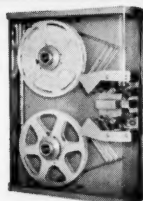


M908
Magnetic
Tape
Transport
With
Complete
Program
Freedom

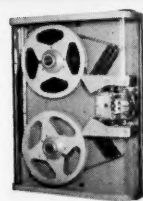


M3260
High Speed
Alphanumeric
Printer

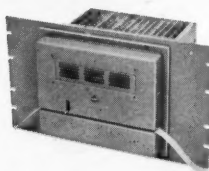
ALL
SOLID
STATE
DESIGNS



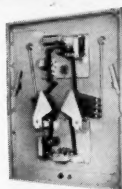
M907
Perforated
Tape
Reader



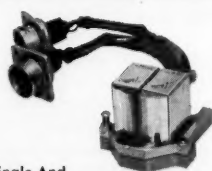
M906
General
Purpose
Magnetic
Tape
Transport



M909 Perforated Strip Reader



M3269
Tape
Loop
Buffer



Single And
Dual Gap Read/Write Heads



Integrated Systems For Data Processing

DATA PROCESSING COMPONENTS AND SYSTEMS

By

POTTER

Potter designed data processing equipments have an established reputation for unexcelled performance and reliability. Maintaining or exceeding the "State of the Art" is the company's philosophy in this fast moving technology.

Custom designs are offered to satisfy military or commercial specifications.

Write for literature describing these and other Potter special application products. For detailed technical specifications on any of the Potter Products listed above, call or write your Potter Representative or the plant.



POTTER INSTRUMENT COMPANY, INC.

Sunnyside Boulevard, Plainview, N. Y.

OVerbrook 1-3200

300 digital process control computer / DESCR: digital computer designed specifically for automatic on-line process control and data logging in petroleum refining, chemical manufacturing, and other process industries, also for automatic test control and data reduction in aircraft, missile, and electronic industries / USE: industrial process control, automatic test control, data logging, and data reduction / — / C24

The Rand Corp.

J. B. Rea Co., Inc.

Remington Rand Div. of Sperry Rand Corp.

ROYAL MCBEE CORP., Westchester Ave., Port Chester, N.Y. / Royal Precision Electronic Computer LGP-30 / DESCR: A serial, single address, stored program, digital computer / USE: Data processing problems in business, industry and government / \$49,500. Rental \$1100 monthly / C24

Servomechanisms, Inc.

Société d'Electronique et d'Automatisme Southwestern Industrial Electronics Co.

Sperry Rand Corp., Sperry Gyroscope Div. Strand Engineering Co.

Sutherland Co. — see C30

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

Technitrol Engineering Company

THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / RW-300 Digital Control Computer / C24

Underwood Corporation — see D1

U.S. Navy, Naval Research Lab.

University of Manchester

University of Sydney

Victor Adding Machine Co.

Wayne-George Corp.

Zuse Kommandit-Gesellschaft

C24A. COMPUTERS, SPECIAL PURPOSE

Aeronutronic Systems, Inc.

Aircraft Armaments, Inc.

American Hydromath Corp.

Atlas Precision Products Co.

Baird-Atomic Co.

Bell Telephone Laboratories

Bendix Aviation Corp., Bendix-Pacific Div.

Bendix Aviation Corp., Research Laboratories Div.

Canadian Westinghouse Co. Ltd.

CGS Laboratories, Inc.

Clifton Precision Products Co., Inc.

Computer Control Co., Inc.

Control Data Corp.

Convair-San Diego-Electronics

Daystrom Instrument, Div. of Daystrom, Inc.

Di/An Controls, Inc.

Dian Laboratories, Inc.

Digitronics Corp.

Donner Scientific Co.

The English Electric Co. Ltd.

Erco Plant — Nuclear Products

Feedback Controls, Inc.

General Automatics, Inc.

General Electric Co., Computer Dept.

General Mills, Inc.

The Geotechnical Corp.

Goodyear Aircraft Corp.

GPE Controls, Inc.

Haller, Raymond, & Brown, Inc.

N. V. Hollandse Signaalapparaten

Hughes Research & Development Laboratories

George F. Kelk, Ltd.

Leeds & Northrup Company

Librascope, Inc.

Link Aviation, Inc. — see C23 and C24

Mathematisch Centrum

National Bureau of Standards, Data Processing Systems Division

Nuclear Development Corp. of America

Pennsylvania State Univ.

PHILCO CORP., GOVERNMENT & INDUSTRIAL DIV., 4700 Wissahickon Ave., Philadelphia 44, Pa. / special purpose computers / C24A

Ransom Research

Seismograph Service Corp.

Sterling Precision Corp.

Stromberg-Carlson, a Division of General Dynamics Corp.

Stromberg-Carlson (West Coast)

Sylvania Electric Products, Inc. (Waltham)

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

Technitrol Engineering Company

Teleregister Corp.

The Teller Company

THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / special purpose computers / C24A

University of Michigan

Vectron, Inc.

Wayne-George Corp.

Westinghouse Electric Corp., Air Arm Division

C25. COMPUTERS, TEST EQUIPMENT

Aircraft Armaments, Inc.

Airpax Electronics Co., Seminole Div.

Analogue Controls, Inc.

Baird-Atomic Co.

Burroughs Corp.

Burroughs Corp., Electronic Tube Div.

Computer Engineering Assoc., Inc.

Computer-Measurements Corp.

Convair-San Diego-Electronics

Cornell-Dublier Electric Corp.

Di/An Controls, Inc.

Digital Equipment Corp.

Digital Service Labs

Digitronics Corp.

Erco Plant — Nuclear Products

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.

GENERAL KINETICS INCORPORATED, 555 23rd Street, South, Arlington 2, Va. / Computer test equipment / DESCR: Magnetic tape testers, magnetic tape ultrasonic cleaners, acceptance test equipment, and specifications / — / — C25

Hewlett-Packard Company

George F. Kelk, Ltd.

Leeds & Northrup Company

Lewyt Manufacturing Corporation

Link Aviation, Inc. — see C23 and C24

Ramo-Wooldridge

Rese Engineering, Inc.

Servo Corp. of America

Statistical Instrument Co.

Strand Engineering Co.

Sunshine Scientific Instrument Co.

Technitrol Engineering Company

THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / computer test equipment / C25

Westinghouse Electric Corp., Air Arm Division

C26. COMPUTER COMPONENTS

Acroscope Engineering Co.

Airflyte Electronics Co.

Airtronics, Inc.

Aladdin Electronics

Allen-Bradley Co.

American Lava Corp.

Andersen Laboratories, Inc.

Atlas Precision Products Co.

AUDIO DEVICES, INC., 444 Madison Ave., New York 22, N.Y. / computer components / C26

Bowmar Instrument Corp.

Bowser, Inc.

The Bristol Company

BRYANT COMPUTER PRODUCTS DIV., Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic storage drums / USE: memory systems / \$1,000 to \$50,000 / C26

Burlingame Associates, Ltd.

Burroughs Corp.

Burroughs Corp., Electronic Tube Div.

Calvert Electronics, Inc.

Celco

Centralab

Chrono-log Corp.

Clarkson Press, Inc.

Clarostat Mfg. Co., Inc.

Coilcraft, Inc.

Collins Radio Company, Western Division

Comptometer Corp.

Comptron Corp.

Computer Control Co., Inc.

Computer Equipment Corp.

Computing Devices of Canada Ltd.

Control Instrument Co.

Convair-San Diego-Electronics

Cook Electric Co.

Corbin Corp.

Cornell-Dublier Electric Corp.

Creed and Co., Ltd.

Curtiss-Wright Corp., Electronics Div.

The Daven Co.

Daystrom Transicoil Corp.

The de Florez Co., Inc.

DIALITE CORP., 60 Stewart Ave., Brooklyn 37, N.Y. / Computer Components / C26

Diamonite Products Mfg. Co.

JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y. / computer components / C26

Digital Equipment Corp.

DIT-MCO, Inc.

Donner Scientific Co.

J. H. Drillick Research Lab., Inc.

Thomas A. Edison Industries

Electronics Research Associates, Inc.

Epsco Components

ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Pulse Forming Networks / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / C26



Up to 26"
carriage
width
available

underwood DATA-FLO SERVOTYPER RECORDS DATA AUTOMATICALLY

Underwood, a pioneer in the development of electric typewriters operated automatically from electrical signals, presents a NEW, HEAVY-DUTY model.

The Servotyper is a "slave" electric typewriter. Type bars are automatically operated by solenoids which are triggered by electrical signals originating from your equipment. A great variety of standard devices—quantizers, digital converters, diode matrices, transducers with digital outputs, etc. are commercially available for translating data into electric signals. These signals are simply and directly used as inputs for operation of the Underwood Data-Flo Servotyper.

The equipment has been specifically designed for data logging and telemetering problems—test and research results, process variables, maintenance data, meteorological data, etc.—anywhere information is secured by electrical instruments.

THESE FEATURES ARE STANDARD EQUIPMENT ON THE NEW UNDERWOOD DATA-FLO SERVOTYPER

- Solenoid operation of all keys, space bar, shift key, back space, carriage return, tabulation and red ribbon.
- Standard keyboards.
- Speed of operation to 11 characters per second.
- Self governing feedback provides true servo operation; supplies proper pulse to govern associated equipment, so that it operates at maximum typing speed.



UNDERWOOD CORPORATION

One Park Avenue, New York 16, N. Y.

underwood masters your paperwork

ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Filters / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / C26

Fairchild Controls Corp., Components Div.
Feedback Controls, Inc.
Ferranti, Ltd.

Ferranti-Packard Electric Ltd.
General Ceramics Corporation
General Electric Co., Computer Dept.
General Electric Co., Specialty Electronic Components Dept.

General Mills, Inc.
The Geotechnical Corp.
Hall-Scott, Inc.
The A. W. Haydon Company
Hughes Research & Development Laboratories

Industrial Development Engineering Assoc., Inc.

Librascope, Inc.

Link Aviation, Inc. — see C23 and C24

Littelfuse, Incorporated

Litton Industries, Inc.

Magnetic Metals Co.

Magnetic Research Corp.

Magnetics, Inc.

Magnetics Research Co., Inc.

P. R. Mallory & Co., Inc.

Measurement Engineering Ltd.

Metron Corp.

Mico Instrument Co.

Minneapolis - Honeywell Regulator Co.

Industrial Division

F. L. Moseley Co.

National Bureau of Standards, Data Processing Systems Division

New London Instrument Co.

North Electric Company

Norton Associates, Inc. — see H1

The Ralph M. Parsons Co.

George A. Philbrick Researches, Inc.

Philips Electronics, Inc.

Photon, Inc.

Potter Instrument Company, Inc.

RADIO CORP. OF AMERICA, ELECTRON TUBE DIVISION, 415 South

5th St., Harrison, N.J. / components

/ DESCR: electron tubes, photosensitive devices; computer tubes, receiving

tubes, thyatrons, storage tubes, cathode ray tubes, camera tubes, photocells

/ — / — / C26

Radio Corp. of America, Semiconductor and Materials Division

Sangamo Electric Co.

Schweber Electronics

Servo Corp. of America

Shallcross Mfg. Co.

Shepard Laboratories, Inc.

Short Brothers & Harland Ltd.

F. W. Sickles Division

Spectrol Electronics Corp.

The Standard Register Co.

Sterling Precision Corp.

Stromberg-Carlson, a Division of General Dynamics Corp.

Sylvania Electric Products, Inc. (New York)

Sylvania Electronic Systems, A Div. of

Sylvania Electric Products Inc., Data Systems Operations

Technitrol Engineering Company

The Teller Company

Trio Laboratories, Inc.

Wang Laboratories

Westinghouse Electric Corp., Air Arm Division

Westronics, Inc.

Whitewater Electronics, Inc.

Wiancko Engineering Co.

Wright Aeronautical

C27. COMPUTING SERVICES

Actuarial Computing Service, Inc.

AEC Computing Facility

Aero Electronics Co.

Airtronics, Inc.

American Machine & Foundry Co., Computing Center

Applied Science Corp. of Princeton

Armour Research Foundation, Illinois Institute of Technology

Booz, Allen Applied Research, Inc.

Brown University, Computing Center

Bureau of the Census

BURROUGHS CORP., ELECTRODATA

DIVISION, 460 Sierra Madre Villa,

Pasadena, Calif. / computing service,

contract computing / DESCR: problem

analysis, programming, coding and

running of problems on Burroughs electronic data processing machines / USE:

customer may do own programming,

coding, or turn over problem and data

to company for solution / machines,

\$90 per hour; service and time of personnel

priced at fixed rates / C27

Canadian Westinghouse Co. Ltd.

Carnegie Institute of Technology

C-E-I-R, INC. (Formerly Corporation for

Economic and Industrial Research),

1200 Jefferson Davis Highway, Arlington

2, Va.; N.Y. Office: 110 E. 42nd

St., New York, N.Y. / IBM 704 and

709 Computers with 32K memory /

DESCR: full line of peripheral data

processors. Computing and peripheral

equipment available on hourly rate

basis. Specialists in the application

of modern analytical techniques to government,

business, and financial problems. Offer a full range of services in

operations research, computing, programming,

data processing, sample design,

market research, problem formulation,

mathematical structuring / —

/ Hourly rates and zone allowance

plan / C27

Computer Control Co., Inc.

Computer Engineering Assoc., Inc.

Convair-San Diego-Electronics

Cook Electric Co.

Cornell Computing Center

Curtiss-Wright Corp., Research Division

DATAMATIC DIV., MINNEAPOLIS-

HONEYWELL REGULATOR CO.,

151 Needham St., Newton Highlands

61, Mass. / DATAMatic Service Bureau

/ DATAMatic Service Bureau offers use

of DATAMatic 1000 electronic data

processing equipment and/or consultation,

analysis and programming for commercial,

industrial or governmental recordkeeping,

or for scientific or engineering applications. All services

available on a contract basis / Hourly

rates for use of equipment and/or

services / C27

DATA PROCESSING CORPORATION,

2727 29th St., N.W., Washington 8,

D.C. / Computing Services / DESCR:

management and operation of data processing systems service centers, including programming and electronic computer services / C27

Dian Laboratories, Inc.

JOHN DIEBOLD & ASSOCIATES,

40 Wall St., New York 5, N.Y. / Computing Services / C27

Digital Service Labs

Digitronics Corp.

Electronic Associates, Inc.

The Foxboro Co.

The Franklin Institute Laboratories

GENERAL ELECTRIC CO., Schenectady,

N.Y. / computing service / DESCR:

Computing service: analog; network

analyzer AC and DC, differential analyzer; not restricted as to users / C27

GENERAL ELECTRIC CO., COMPUTER

DEPT., 13430 N. Black Canyon Highway (P.O. Drawer 270) Phoenix, Ariz.

/ Computing services / C27

General Electric Co., Specialty Electronic

Components Dept.

GENERAL KINETICS, INC., 555 23rd

St., South, Arlington 2, Va. / Complete

services in the fields of digital computer

programming and programming research /

DESCR: programming services for all general purpose

computers; recommendation, design,

and construction of automatic programming-automatic checking systems to fit

specific needs; mathematical studies;

numerical analysis; data-reduction; information

retrieval / — / estimates prepared for each job / C27

Georgia Institute of Technology

The Geotechnical Corp.

Lehigh University

Loyola Laboratories

Midwest Research Institute

Moore School of Electrical Engineering

National Analysts, Inc.

National Bureau of Standards, Applied

Mathematics Division

National Physical Laboratory, Mathematics

Division

Nuclear Development Corp. of America

PI-SQUARE ENGINEERING CO.,

AMERICAN CENTER FOR ANALOG

COMPUTING, 127 Clarendon St.,

Boston 16, Mass. / analog computing

/ DESCR: AC/AC makes available to science or industry a complete analog

computing installation. The client may utilize his own experts, have personnel

trained or call on specialists recommended by AC/AC / USE: for

solving complex problems of any nature / fees — hourly and contractual

basis / C27

Purdue University

Radio Corp. of America, Electronic Data

Processing Division — see D1

Ramo-Wooldridge

Reeves Instrument Corp.

Rensselaer Polytechnic Institute

Seismograph Service Corp.

The Service Bureau Corp.

Southwestern Computing Service

Stanford Computation Center

Stanford Research Institute

Sylvania Electronic Systems, A Div. of

Sylvania Electric Products Inc., Data

Systems Operations

Systems Laboratories Corporation

Tammen & Denison, Inc.

U.S. Air Force, Digital Computation Branch
U.S. Air Force, Inst. of Technology
U.S. Air Force, Rome Air Development
Center

U.S. Air Force, Structures Branch
U.S. Air Force, Wright Air Development
Center, Aeronautical Research Lab.

U.S. Naval Proving Ground
University of California
University of Durham Computing Labora-
tory

University of Illinois

University of Michigan

University of Rochester

University of Toronto

The George Washington University

Watson Scientific Computing Laboratory

Wayne State University Computing Center

Westinghouse Electric Corp., Air Arm
Division

C28. COMPUTING SERVICES, DIGITAL

American Machine & Foundry Co.

Battelle Memorial Institute

**BENDIX AVIATION CORP., BENDIX
COMPUTER DIVISION**, 5630 Arbor
Vita St., Los Angeles 45, Calif. /
machine time and programming /
DESCR: machine time and program-
ming assistance on Bendix G-15 digital
computer (see C24) available at fac-
tory and in several cities / USE: sci-
entific, engineering and data processing
problems / Machine time, \$25-hr.; pro-
gramming, analysis, operation, \$10-hr.
/ C28

B J Electronics, Borg-Warner Corp.

Brender and Brender, Inc.

C G Electronics Corp.

Computer Control Co., Inc.

Convair-San Diego-Electronics

**DATAMATIC DIV., MINNEAPOLIS-
HONEYWELL REGULATOR CO.**,
151 Needham St., Newton Highlands
61, Mass. / DATAmatic Service Bureau
/ DATAmatic Service Bureau offers use
of DATAmatic 1000 electronic data
processing equipment and/or consul-
tation, analysis and programming for
commercial, industrial or governmental
recordkeeping, or for scientific or en-
gineering applications. All services
available on a contract basis / Hourly
rates for use of equipment and/or
services / C28

The Datics Corp.

**JOHN DIEBOLD & ASSOCIATES,
INC.**, 40 Wall St., New York 5, N.Y.
/ digital computing services / C28

ELECTRONIC BUSINESS SERVICES,
3266 Hunts Point Rd., Bellevue, Wash.
/ Consultation in automation and data
processing service / DESCR: consul-
tation services, particularly for oper-
ators of small and moderate size busi-
nesses having problems in data pro-
cessing, automation, etc. / USE: serv-
ices vary to fit needs of clientele /
charges vary depending on amount of
work involved and results produced
/ C28

Ferranti, Ltd.

Financial Publishing Co.

The Franklin Institute Laboratories

General Electric Co., Computer Dept.

General Kinetics Incorporated — see C27

ADVANCED DIGITAL TECHNIQUES, COMPUTERS AND CONTROL SYSTEMS

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- ▶ NEW LOGICAL STRUCTURES

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Laboratories Division, Bendix Aviation Corporation,
Southfield, Michigan.

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DETROIT 35, MICHIGAN



Harvard University, Harvard Computation Lab
 Cecil Hastings, Jr.
 Institut Blaise Pascal
 Arthur D. Little, Inc.
 Moore School of Electrical Engineering
 Norton Associates, Inc. — see H1
 Pi-Square Engineering Co. — see C27
 Radio Corp. of America, Electronic Data Processing Division — see D1
 Recording and Statistical Corp.
 Remington Rand Div. of Sperry Rand Corp.
 Swedish Board for Computing Machinery
 Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations
 U.S. Army, Ballistic Research Labs.
 U.S. Naval Proving Ground
 University of California, Dept. of Mathematics
 University of Cambridge
 Westgate Laboratory, Inc.
 Westinghouse Electric Corp., Analytical Department

C29. CONNECTORS

Accurate Electronics Corp.
 Alden Products Co.
AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / connectors / DESCR: computer connectors and wiring devices / computer circuitry / C29
 Amphenol Electronics Corp.
 Cinch Manufacturing Corp.
 DeJur-Amsco Corp.
ELCO CORPORATION, "M" St. below Erie Ave., Philadelphia 24, Pa. / Connectors for printed circuit and standard application / DESCR: versatile and flexible line of connectors providing almost any spacing desired. Reliable insertion and withdrawal data under stringent conditions already proven. Variety of connectors allows for engineering freedom of design. Available in standard, miniature, and microminiature sizes / USE: quick disconnect for electronic circuits / Depending on size from 50c on up / C29
 Gulton Industries, Inc.
 Sangamo Electric Co.
 Schweber Electronics
 Westinghouse Electric Corp., Analytical Department
 Winchester Electronics, Inc.

C30. CONSULTING SERVICES

ADB Institutet
 Automation Consultants, Inc.
AUTOMATION ENGINEERS, 344 W. State St., Trenton, N.J. / Management consultants / Analysis of automation opportunities and the economics of application; specialists in data processing; supervision in design and installation of automation improvements: Registered Professional Engineers / C30
 Automation Research and Design Associates
 Benge Associates
 Booz, Allen and Hamilton
 Booz, Allen Applied Research, Inc.
 Bowles, Andrews and Towne, Inc.
 Burndy Corporation, Omaton Div.
 John H. Burns & Associates
 C-E-I-R, Inc. — see C27

C G Electronics Corp.
 Circuit Engineering
 Comptron Corp.
 Computer Engineering Assoc., Inc.
 Computing Consultants, Inc.
 Computing Devices of Canada Ltd.
 Cook Electric Co.
 Corbin Corp.
 Dasol Corp.
 The Datics Corp.

JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y. / Consulting Services / C30

DocuMation, Inc.
 Arnold I. Dumey
 Ebasco Services Inc.
 Wesley B. Edgar

ELECTRONIC BUSINESS SERVICES, 3266 Hunts Point Rd., Bellevue, Wash. / Consultation in automation and data processing service / DESCR: consultation services, particularly for operators of small and moderate size businesses having problems in data processing, automation, etc. / USE: services vary to fit needs of clientele / charges vary depending on amount of work involved and results produced / C30

Electronic Computer Programming Institute
 Ferranti-Packard Electric Ltd.
 Fischbach, McCoach & Associates, Inc.
H. S. GELLMAN & CO., LTD., 110 Bloor St. West, Toronto, Ont., Canada. / consulting services / electronic data processing consultants. Feasibility studies, programming services, operations research, training of clients' personnel / C30

General Electric Co., Computer Dept.
 General Kinetics Incorporated — see C25 and C27

Gulton Industries, Inc.
 Haller, Raymond, & Brown, Inc.
 Information Systems, Inc.
 KCS Ltd.

Edwin A. Lipps Engineering
 Arthur D. Little, Inc.

H. B. Maynard & Co., Inc.
 Midwest Research Institute
 Measurement Engineering Ltd.

H. JEFFERSON MILLS, JR., Management Consultant, 2725 29th St., N.W., Washington 8, D.C. / Consulting Services / DESCR: management counsel in systems analysis, equipment evaluation, organization and facilities planning; personnel recruitment, selection and training; and installation programs for electronic computers and other automatic data processing applications in business, industry and government / — / C30

Moore School of Electrical Engineering
 National Analysts, Inc.
 George A. Philbrick Researches, Inc.
 Ramo-Wooldridge
 Ransom Research
 Scientific Computing Service
 Short Brothers & Harland Ltd.
 Stanford Research Institute

SUTHERLAND CO., 1112 First National Bank Bldg., Peoria, Ill. / consulting services / DESCR: Information systems specialists within the management and operational environment. Practical application of advanced scientific management and operations research tech-

niques to provide optimum decision criteria and summary-control and exception-type reports from information processing, storage and retrieval systems. Evaluation, analysis, documentation, computer programming, and utilization of other information processing equipment / USE: clients in industry, commerce and government / billing based on work assignment / C30

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

University of Toronto

Watson Scientific Computing Laboratory

C31. CONTROLS

Airpax Electronics Co., Seminole Div.

BENDIX AVIATION CORP., RESEARCH LABORATORIES DIV., P.O. Box 5115, Detroit 35, Michigan / controls / C31

Comptron Corp.
 Data Systems Div., Norden-Ketay Corp.
 Daystrom Systems, Div. of Daystrom, Inc.
 The de Florez Co., Inc.
 Electronic Control Systems, Inc.
 Electronics Corp. of America
 Electrosnap Corp.
 Elliott Bros. (London) Ltd.
 E-Z Sort Systems, Ltd.
 Farrand Controls, Inc.
 The Foxboro Co.
 GPE Controls, Inc.
 Guardian Electric Mfg. Co.
 Hammarlund Mfg. Co., Inc.

HARVEY-WELLS ELECTRONICS, INC., Research and Development Div., 5168 Washington St., West Roxbury 32, Mass. / building blocks / DESCR: 5-megacycle Data Bloc and Data Pac, high speed digital logic building blocks, an entirely new concept in computer control systems. Logic units, decade scalars, shift registers, counters and power supplies are included in the Harvey-Wells line of digital building blocks / USE: in data handling, data conversion, process control and automation, missile tracking systems and radar simulation. The Data Bloc units are primarily intended for planning and prototype work. Data Pacs are used for subsequent production runs / — / C31

The A. W. Haydon Company

Hughes Research & Development Laboratories

International Telemeter Corp.

Kaiser Metal Products, Inc.

The Walter S. Kraus Co.

Minneapolis-Honeywell Regulator Co., Industrial Division

National Bureau of Standards, Data Processing Systems Division

Philco Corp., Government & Industrial Div. — see C24, D1

Ramo-Wooldridge

Ransom Research

Visirecord, Inc.

Westgate Laboratory, Inc.

C32. CONTROLS, AUTOMATIC

Advanced Electronics, Inc.

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TWX Roxbury, Mass. 1057
HIGHLANDS 5-5640

Applied Science Corp. of Princeton
Assembly Products, Inc.
Atlas Precision Products Co.
Consolidated Controls Corp. — see D12
Datex Corp.
Di/An Controls, Inc.
Electronic Specialty Co.
Elliott Bros. (London) Ltd.
Engineers Northwest
General Controls Co.
General Electric Co., Computer Dept.
GPE Controls, Inc.
The A. W. Haydon Company
Hillyer Instrument Co.
N. V. Hollandse Signaalapparaten
Industrial Control Co.
Industrial Nucleonics Corporation
International Resistance Company
Leeds & Northrup Company
Lewyt Manufacturing Corporation
Measurement Engineering Ltd.
Miles Reproducer Co., Inc.
Minneapolis-Honeywell Regulator Co.,
Boston Division
Notifier Corp.
Panellit, Inc.
Ransom Research
Servomechanisms, Inc.
The Teller Company
The Thompson-Ramo-Wooldridge Products Co., P.O. Box 90067, Airport Sta.,
Los Angeles 45, Calif. / automatic controls / C32
Vickers, Inc.
Weston Instruments

C33. CONTROLS, SIGNALING

Advanced Electronics, Inc.
American Electronics, Inc.
Applied Science Corp. of Princeton
Bendix Aviation Corp., Bendix-Pacific Div.
Bowmar Instrument Corp.
Electronic Specialty Co.
Elliott Bros. (London) Ltd.
General Electric Co., Computer Dept.
GPE Controls, Inc.
Industrial Nucleonics Corporation
International Resistance Company
Leeds & Northrup Company
Miles Reproducer Co., Inc.
Notifier Corp.
Ransom Research
Vickers, Inc.

C34. CONTROLS, SORTING AND COUNTING

Avco Mfg. Corp.
Baird-Atomic Co.
Di/An Controls, Inc.
Digitronics Corp.
Eagle Signal Corp.
Ferranti-Packard Electric Ltd.
General Electric Co., Computer Dept.
The A. W. Haydon Company
Industrial Nucleonics Corporation
Measurement Engineering Ltd.
Opad Electric Co.
Ransom Research
Stromberg-Carlson, a Division of General Dynamics Corp.
Sunshine Scientific Instrument Co.

C35. CONVERTERS, ELECTRICAL

Audio Instrument Co., Inc.
Consolidated Avionics Corp.

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Ferranti-Packard Electric Ltd.
Kay Electric Co.
Packard Bell Computer Corp.
Sangamo Electric Co.

**C36. CONVERTERS, ELECTRICAL,
HIGH FREQUENCY**

**C37. CONVERTERS, ELECTRICAL,
LOW FREQUENCY**

Airpax Electronics Co., Seminole Div.
Leeds & Northrup Company

**C38. CONVERTERS, ELECTRICAL,
POWER FREQUENCY**

Airpax Electronics Co., Seminole Div.
Consolidated Avionics Corp.
Northam Electronics, Inc.
Opad Electric Co.
Sangamo Electric Co.
Trans Electronics, Inc.
Vickers, Inc.

C39. CONVERTERS, INFORMATION

Avion Division, ACF Industries, Inc.
Bendix Aviation Corp., Bendix-Pacific Div.
Benson-Lehner Corp.
GCS Laboratories, Inc.
Control Data Corp.
DI/AN CONTROLS, INC., 40 Leon St., Boston 15, Mass. / Converters / DESCR: code and format converters / C39

Electronic Engineering Co. of Calif.
Ferranti-Packard Electric Ltd.
Fischer & Porter Co.
General Electric Co., Computer Dept.
General Mills, Inc.
The Geotechnical Corp.
The A. W. Haydon Company
Hewlett-Packard Company
Librascope, Inc.

LINK AVIATION, INC., Binghamton, N.Y. / Converters / High Speed Digital to Analog and Analog to Digital converters, Paper Tape to computer intelligence, etc. available as standard design items / C39

National Data Processing Corporation
Northrup Aircraft, Inc.

PHILCO CORP., GOVERNMENT & INDUSTRIAL DIV., 4700 Wissahickon Ave., Philadelphia 44, Pa. / converters, information / C39

Ransom Research
Rex Corp.
Statistical Instrument Co.
Telemeter Magnetics, Inc. — see M2
The Thompson-Ramo-Wooldridge Products Co.
U.S. Naval Proving Ground

**C40. CONVERTERS, INFORMATION,
ANALOG TO DIGITAL**

Aeronca Mfg. Corp.
Airflyte Electronics Co.
Airpax Electronics Co., Seminole Div.
Armour Research Foundation, Illinois Institute of Technology
Bendix Aviation Corp., Bendix-Pacific Div.
Bendix Aviation Corp., Eclipse-Pioneer Div.
Clifton Precision Products Co., Inc.
Coleman Engineering Co.
Colorado Research Corp.

CONSOLIDATED CONTROLS CORP., Bethel, Conn. / magnetic shaft position encoder / DESCR: shaft position to digital voltage encoder; magnetic pickoffs operate out of contact with no wear / USE: digital position feed back / price on request / C40

Cubic Corporation
Datex Corp.
The Datics Corp.
Daystrom Systems, Div. of Daystrom, Inc.
Di/An Controls, Inc.
Electro Instruments, Inc.
Farrand Optical Co., Inc.
Fischer & Porter Co.
Ford Instrument Co.
General Electric Co., Computer Dept.
General Mills, Inc.
Gilmore Industries, Inc.
GPE Controls, Inc.
Hoover Electronics Company
Kearfott Co., Inc.
Lewyt Manufacturing Corporation
Librascope, Inc.
Librascope, Inc., Commercial Division
Link Aviation, Inc. — see C23, C24, and C39
The Magnovox Co.
Measurement Engineering Ltd.
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division
Minneapolis-Honeywell Regulator Co., Florida Inertial Guidance Center
Moran Instrument Corp.
The Newton Co.

NON-LINEAR SYSTEMS INC., Del Mar Airport, Del Mar, Calif. / Analog to Digital Converters and Data Logging Systems / DESCR: convert electrical parameters into digital visual and electrical form. Complete systems permit automatic recording of up to 1000 input channels / USE: computer set-up and solution recording / converters, \$1285 to \$8500; systems, \$2000 to \$80,000 / C40

Norden Division of United Aircraft Corp.
Radiation Counter Laboratories, Inc.
Ransom Research
J. B. Rea Co., Inc.
Reeves Instrument Corp.
The Standard Register Co.
Stromberg-Carlson (West Coast)
Telectro Industries Corp.
The Thompson-Ramo-Wooldridge Products Co.
Veeder-Root, Inc.
Wayne-George Corp.
Weston Instruments

**C41. CONVERTERS, INFORMATION,
CARD TO MAGNETIC TAPE**

Addressograph-Multigraph Corp.
Di/An Controls, Inc.
Electronic Engineering Co. of Calif.
General Electric Co., Computer Dept.
National Data Processing Corporation
Radio Corp. of America, Electronic Data Processing Division — see D1
Remington Rand Div. of Sperry Rand Corp.
Telectro Industries Corp.

**C42. CONVERTERS, INFORMATION,
CARD TO PAPER TAPE**

Atlas Precision Products Co.
Di/An Controls, Inc.
Electrosnap Corp.

General Cybernetics Corp.
General Electric Co., Computer Dept.
INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 63 Card-Controlled Tape Punch / DESCR: The 63 reads alphabetical and numerical information in IBM punch cards and perforates 5-channel telegraphic tape with that data. The machine consists of a card reading unit and a tape punching unit / USE: to transmit data automatically by commercial wire services / Monthly rental, \$75. Selling price, \$3,600. All prices exclusive of tax / C42
International Computers & Tabulators Limited
National Data Processing Corporation
PDP Division American Electronics, Inc.
Remington Rand Div. of Sperry Rand Corp.
Underwood Corporation — see T18

**C43. CONVERTERS, INFORMATION,
COMPUTING**

Airpax Electronics Co., Seminole Div.
Applied Science Corp. of Princeton
BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / AN-1 alphanumeric adapter / DESCR: enables Bendix G-15 general purpose digital computer to read or punch codes via paper tape or other media, of other data handling, computing and communication devices (see C24) / sale \$13,650; lease \$550 per month / C43
Control Data Corp.
Di/An Controls, Inc.
General Electric Co., Computer Dept.
Librascope, Inc.
Ransom Research

**C44. CONVERTERS, INFORMATION,
DIGITAL TO ANALOG**

Airflyte Electronics Co.
Airpax Electronics Co., Seminole Div.
Armour Research Foundation, Illinois Institute of Technology
Bendix Aviation Corp., Bendix-Pacific Div.
Clifton Precision Products Co., Inc.
Coleman Engineering Co.
Computer-Measurements Corp.
Di/An Controls, Inc.
Ford Instrument Co.
General Electric Co., Computer Dept.
Hewlett-Packard Company
Kearfott Co., Inc.
Librascope, Inc.
Link Aviation, Inc. — see C23, C24, and C39
Ransom Research
Reeves Instrument Corp.
Société d'Electronique et d'Automatisme
Systems Laboratories Corporation
The Teller Company

**C45. CONVERTERS, INFORMATION,
MAGNETIC TAPE TO CARD**

Di/An Controls, Inc.
Electronic Engineering Co. of Calif.
General Electric Co., Computer Dept.
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division

National Data Processing Corporation
Radio Corp. of America, Electronic Data
Processing Division — see D1
Remington Rand Div. of Sperry Rand Corp.
Telectro Industries Corp.

**C46. CONVERTERS, INFORMATION,
MAGNETIC TAPE TO PAPER TAPE**

Control Data Corp.
Di/An Controls, Inc.
Ferranti-Packard Electric Ltd.
General Electric Co., Computer Dept.
National Data Processing Corporation
Radio Corp. of America, Electronic Data
Processing Division — see D1
Ransom Research
Remington Rand Div. of Sperry Rand Corp.

**C47. CONVERTERS, INFORMATION
PAPER TAPE TO CARD**

Di/An Controls, Inc.
Digital Service Labs
Ferranti-Packard Electric Ltd.
General Electric Co., Computer Dept.
INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 46 Tape-to-Card Punch / DESCR: The 46 reads alphabetic or numerical information from a punched paper tape and converts it to IBM punched cards / **USE:** Model 1 reads 5 and 8-channel tape; Model 2 reads 8-channel only. 5-channel tapes can be transmitted by commercial wire services / Monthly rental, Model 1, \$140, Model 2, \$135. Selling prices, Model 1, \$6,300, Model 2, \$6,050. All prices exclusive of tax / C47

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 47 Tape-to-Card Printing Punch / DESCR: The 47 reads alphabetic or numeric information from a punched paper tape and converts it to IBM punched cards. With the 47, any information punched may be printed along the top of the card. The printed characters will appear in the same column as their corresponding punches. Model 1 reads 5 and 8-channel tape. Model 2 reads 8-channel tape only / Monthly rental prices, Model 1, \$160, Model 2, \$155. Selling prices, Model 1, \$7,200, Model 2, \$6,950. All prices exclusive of tax / C47

International Computers & Tabulators Limited
Minute Maid Corp.
National Data Processing Corporation
Remington Rand Div. of Sperry Rand Corp.
Underwood Corporation — see T18

**C48. CONVERTERS, INFORMATION,
PAPER TAPE TO MAGNETIC TAPE**

Control Data Corp.
Di/An Controls, Inc.
Digital Service Labs
Digitronics Corp.
FERRANTI ELECTRIC, INC., 95 Madison Ave., Hempstead, N.Y. / paper to magnetic tape converter / DESCR: converts 5, 6, 7, or 8 hole paper tape to magnetic at rates up to 400 char-

acters/sec. Simplest form converts paper tape code directly without buffer storage. Code changing and buffer storage available as extra modular units / **USE:** various — useful for converting data received via teletype to magnetic tape for computer input / \$25,000 to \$30,000 / C48

Ferranti-Packard Electric Ltd.
General Electric Co., Computer Dept.
National Data Processing Corporation
Ransom Research
Remington Rand Div. of Sperry Rand Corp.

C49. CORDS

AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / cords / DESCR: power supply cords / **USE:** computer circuitry / C49

C50. CORES

THE ARNOLD ENGINEERING CO., P.O. Box G, Marengo, Ill. / cores / — see C52 / C50
Ferroxcube Corp. of America
Magnetics, Inc.
Magnetics Research Co., Inc.
National Moldite Co.
Stackpole Carbon Co.
Steward Mfg. Co.
Telemeter Magnetics, Inc. — see M2

C51. CORES, FERRITE

Aerovox Corp.
Allen-Bradley Co.
Ferroxcube Corp. of America
General Electric Co., Computer Dept.
Mico Instrument Co.
Radio Corp. of America, Semiconductor and Materials Division
The Yale & Towne Manufacturing Co.

C52. CORES, MAGNETIC

THE ARNOLD ENGINEERING CO., P.O. Box G, Marengo, Ill. / Bobbin cores / DESCR: Bobbin cores of 4-79 Mo-Permalloy and Deltamax as well as tape wound cores including Supermalloy and Supermendur; powder cores of Molybdenum Permalloy, Sendust and carbonyl iron; "C" and "E" cores; Alnico permanent magnets; special magnetic materials / **USE:** in shift registers, coincident current matrix systems, pulse transformers, static magnetic memory elements, harmonic generators and similar equipment / between 40c and \$5.00 / C52

Carstedt Research, Inc.
Columbian Carbon Co., Mopico Color Div.
Ferroxcube Corp. of America
General Ceramics Corporation
General Electric Co., Computer Dept.
General Electric Co., Electronic Components Dept.
General Electric Co., Semiconductor Products Dept.

THE NATIONAL CASH REGISTER CO., So. Main and K Sts., Dayton 9, Ohio / magnetic cores / C52
The Yale & Towne Manufacturing Co.

C53. COUNTERS

Airpax Electronics Co., Seminole Div.
Alden Products Co.
Bendix Aviation Corp., Bendix-Pacific Div.

Data Instruments Div. of Telecomputing Corp.
Electrol, Inc.
Engineered Electronics Co.
Ferranti-Packard Electric Ltd.
General Controls Co.
Gordon Enterprises
Harvey-Wells Electronics, Inc. — see C31
The A. W. Haydon Company
Hewlett-Packard Company
Hillburn Electronic Products Co.
Landis & Gyr, Inc.
Magnetics Research Co., Inc.
Radiation Counter Laboratories, Inc.
Tally Register Corp.
The Walkirt Co. — see C10

C54. COUNTERS, ELECTRONIC

Airpax Electronics Co., Seminole Div.
Baird-Atomic Co.
Bendix Aviation Corp., Bendix-Pacific Div.
Bowmar Instrument Corp.
Burroughs Corp., Electronic Tube Div.
Di/An Controls, Inc.
Ferranti-Packard Electric Ltd.
Gordon Enterprises
Hewlett-Packard Company
Lewyt Manufacturing Corporation
Richardson Camera Company, Inc. — see D2A
Strand Engineering Co.
Strandberg Engineering Lab., Inc.
Veeder-Root, Inc.
The Walkirt Co. — see C10

C55. COUNTERS, FREQUENCY

Airpax Electronics Co., Seminole Div.
Bendix Aviation Corp., Bendix-Pacific Div.
Electro Instruments, Inc.
Ferranti-Packard Electric Ltd.
Gordon Enterprises
Hewlett-Packard Company
The Walkirt Co. — see C10

C56. COUNTERS, MECHANICAL

Atlas Precision Products Co.
Bendix Aviation Corp., Bendix-Pacific Div.
Bowmar Instrument Corp.
Chrono-log Corp.
Fischer & Porter Co.
Gordon Enterprises
Sigma Instruments Inc.

C57. COUNTERS, PROPORTIONAL

Baird-Atomic Co.
Bowmar Instrument Corp.
The A. W. Haydon Company

C58. COURSES BY MAIL (COMPUTER FIELD)

EDMUND C. BERKELEY & ASSOCIATES, 815 Washington St., Newtonville 60, Mass. / Courses by Mail / DESCR: over 30 courses by mail in automatic computers, mathematics, construction of small electric brain machines, construction of small robots, symbolic logic, and other scientific subjects / **USE:** instruction / \$9 to \$50 / C58
Business Electronics, Inc.
Electronic Computer Programming Institute

THE PHILCO TECHNOLOGICAL CENTER, 22nd and Lehigh Ave., Philadelphia 32, Penna. / computer and transistor correspondence courses / DESCR: basic theory, operational aspects and transistor correspondence courses and applications of analog and digital computers, including computational mathematics, programming, installation, maintenance, operation and manufacturing techniques of all makes / USE: instruction / \$40 to \$125 / C58

D1. DATA PROCESSING MACHINERY

Addo-x, Inc.

American Electronics, Inc.

AUTOMATION ENGINEERS, 344 W. State St., Trenton, N.J. / Data inter-coupler / DESCR: Mechanism for cable connecting an automatic multiplying typewriter with any standard accounting machine. Programmed output information for the typewriter is automatically transmitted to the accounting machine / USE: simplifies accounting systems by combining the complete invoicing operation with accounts receivable, inventory, and sales-profit analysis / between \$2,000 and \$3,000 / D1

Avion Division, ACF Industries, Inc.

Benson-Lehner Corp.

BULL S.A. COMPAGNIE DES MACHINES, 94 Avenue Gambetta, Paris 20, France / DESCR: punch card machines; data processing equipment; scientific gamma computers / \$20,000 to \$3,000,000 / D1

Burroughs Corp., Research Center

Canadian Applied Research Ltd.

C-E-I-R, Inc. — see C27

Computer Control Co., Inc.

Consolidated Electrodynamics Corp.

Control Data Corp.

DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 151 Needham St., Newton Highlands 61, Mass. / DATAMatic 1000 Electronic Data Processing System / DESCR: general purpose electronic data processing system consisting of high-speed, off-line input and output conversion sections, high-capacity magnetic filing section utilizing 3-inch-wide magnetic tape and a central processing section consisting of input-output buffers, a high-speed magnetic core memory, arithmetic and control units and a central console / USE: all types of general accounting and business data processing operations, and general scientific applications / monthly rental \$21,500 and up. Selling price \$985,000 and up / D1

DATAMATIC DIV., MINNEAPOLIS-HONEYWELL REGULATOR CO., 151 Needham St., Newton Highlands 61, Mass. / Honeywell 800 Transistorized Data Processing System / DESCR: medium-scale, general purpose, fully transistorized system. Internal operating speed is 30,000 three-address operations per second; magnetic tape speed is 96,000 decimal digits/second. Magnetic-core memory ca-

capacity is 4,096 to 16,384 words. Works in both binary and decimal arithmetic, floating-point arithmetic is optional. Automatically controlled parallel processing permits up to 8 programs (business and/or scientific) in parallel operation. Reads, writes, and computes simultaneously. Small building-block units permit unlimited expansion / USE: business data processing and/or scientific computing / Monthly rental, \$11,000 and up; selling price, \$528,000 and up / D1

Dennison Mfg. Co.

JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y. / Data Processing Machinery / D1

DI/AN CONTROLS, INC., 40 Leon St., Boston 15, Mass. / Data Processing Machinery / DESCR: buffer storages, memories, special purpose digital and analog computers, code and format converters, digital computer elements, counters, magnetic and transistor shift registers and logical elements, transistor circuit packages, plug-in circuits, servo amplifiers, special instrumentation equipment / D1

Electronic Associates, Inc.

Electronic Control Systems, Inc.

Electronic Engineering Co. of Calif.

Electronics Corp. of America

The English Electric Co. Ltd.

Fairchild Camera & Instrument Corp.

Ferranti, Ltd.

Ferranti-Packard Electric Ltd.

FRIDEN, INC., San Leandro, Calif. / Add-Punch / DESCR: ten-key electric adding and listing machine that produces a standard adding machine tape as an original source document and, as an automatic by-product, punches complete or select data on a common language tape for subsequent data processing; has visible check dials which show each item entered before adding, printing, or punching / USE: to record data at source level for integrated data processing by card-punch or other common-language machines / D1

FRIDEN, INC., San Leandro, Calif. / Friden Computypewriter / DESCR: electro-mechanical automatic writing-calculating machine. Automatic input from punched tape, edge-cards, or tab cards, or manual input from standard typewriter keyboard; all calculations performed and printed automatically. With coded input, production of original documents and integrated records is automatic. Machine has full compatibility with variety of auxiliary input-output units. USE: billing or invoicing with simultaneous punching of tab cards and by-product punched tape for automatic processing or wire transmission; computer input; sales and purchase order writing; payroll computing / D1

General Electric Co., Computer Dept.

General Precision Laboratory, Inc.

The Geotechnical Corp.

Gordon Enterprises

GPE Controls, Inc.

Hewlett-Packard Company

Hughes Research & Development Laboratories

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM Series 1200 Character Sensing Equipment / DESCR: A new electronic system for the automatic handling of bank checks. The new Series 1200 equipment makes use of an arabic character "common language" which can be read by both men and machines. These characters, representing the amount, bank number, and other essential data, are imprinted on each check in magnetic ink. The Series 1200 equipment reads this information from each check, proves and accumulates totals for all checks being processed, sorts the checks into desired sequence, and posts check data directly into an IBM data processing system for a completely automatic check processing operation. The new Series 1200 equipment consists of four units: a utility inscriber, proof inscriber, sorter-reader, and a control unit. Series 1200 equipment can be used with the IBM 407 accounting machine, RAMAC 305 computer, and 650, 705, and 7070 data processing systems to meet the needs of banks of various sizes / USE: automatic check handling / Rental and purchase prices available from the manufacturer / D1

International Computers & Tabulators Limited

The Kybernetes Corp.

Lewyt Manufacturing Corporation

Librascope, Inc.

LINK AVIATION, INC., Binghamton, N.Y. / Data Processing and Display / Full range of both analog and digital computer equipment for data processing and reduction. Resulant display equipment includes x-y plotters, continuous and periodic event recorders and a Forty Character Oscilloscope Display / D1

The Magnovox Co.

M. I. T. Computation Center

Monroe Calculating Machine Co.

National Analysts, Inc.

THE NATIONAL CASH REGISTER CO., So. Main and K Sts., Dayton 9, Ohio / NCR 304 electronic data processing system / DESCR: transistorized magnetic tape data processor with 20,000 to 40,000 characters of magnetic core storage / USE: general-purpose business use / rental, \$17,000 and up per month; purchase, \$750,000 and up / D1

THE NATIONAL CASH REGISTER CO., Electronics Div., 1401 East El Segundo Blvd., Hawthorne, Calif. / data processing machinery / DESCR: electronic research and development in the field of business data processing systems / D1

The Newton Co.

NON-LINEAR SYSTEMS INC., Del Mar Airport, Del Mar, Calif. / Oscillogram trace readers / DESCR: converts trace deflections into digital form, applies linear or non-linear calibrations and records time and data in column form on electric typewriter / USE: simplifies and speeds reduction of oscillographic data / \$10,000 to \$20,000 / D1

Northam Electronics, Inc.
Northrop Aircraft, Inc.
PDP Division American Electronics, Inc.

PHILCO CORP., GOVERNMENT & INDUSTRIAL DIV., 4700 Wissahickon Ave., Philadelphia 44, Pa. / Transac S-2000 / DESCR: large-scale general purpose data processing system; extremely high-speed; all transistorized / USE: scientific, engineering, business, military and simulation computation and data processing / selling price, \$1,200,000 up; monthly rental, \$30,000 / D1

Radiation, Inc.

RADIO CORPORATION OF AMERICA, ELECTRONIC DATA PROCESSING DIVISION, Front & Cooper Sts., Camden 2, N.J. / the RCA 501 electronic data processing system / DESCR: the RCA 501 is 100% transistorized, including peripheral equipment . . . expandable from medium size to practically unlimited capacity. It can perform 16 different simultaneous operations, read its magnetic tapes forward or backward. The system employs unique storage and processing techniques which can save hours of computer time per day / USE: to achieve extremely low cost per unit of work in general business data processing / rental; \$11,850/mo. to \$35,000/mo.; purchase; \$550,000 to \$1,500,000 / D1

Ramo-Wooldridge

ROYAL MCBEE CORP., Westchester Ave., Port Chester, N.Y. / Royal Precision Electronic Computer LGP-30 / DESCR: A serial, single address, fixed point, stored program, digital computer / USE: Data processing problems in business, industry and government / \$49,500. Rental \$1100 monthly / D1

Seismograph Service Corp.

Smith-Corona Marchant, Inc.

Southwestern Industrial Electronics Co.

Sperry Rand Corp., Sperry Gyroscope Div.

The Standard Register Co.

Strand Engineering Co.

Stromberg-Carlson, a Division of General

Dynamics Corp.

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

TECHNICAL OPERATIONS, INC., Burlington, Mass. / data processing systems / DESCR: computer systems and applications / D1

Technitrol Engineering Company

Telectro Industries Corp.

The Teller Company

THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / data processing machinery / D1

UNDERWOOD CORPORATION, One Park Ave., New York 16, N.Y. / data processing machinery / DESCR: Data-Flo systems with manual programming, tape programming, or plug board programming with 88,275 or 550 steps. Systems comprise electric typewriters, adding machines, paper tape punches and readers, card punches and readers, independently controlled. Underwood

Electronic Business Computer (UEBC), small size, low cost computer, with on line output printers, paper tape punches and readers (see also I3 and T18) / USE: any business applications requiring integrated data processing, either as self-contained systems, or in conjunction with any other equipment using paper tape, specially input to punch card systems, or to medium or large scale computers / \$1,850 to \$12,000, (Data-Flo) \$74-\$480 monthly; \$24,000 to \$32,000, (UEBC) \$720-\$960 rentals / D1

U.S. Navy, Aviation Supply Office
Wiancko Engineering Co.
Wright Aeronautical

D2. DATA RECORDING EQUIPMENT

Addo-x, Inc.

Alleghany Instrument Co., Inc.

American Electronics, Inc.

AMPEX CORP., INSTRUMENTATION DIV., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic tape recorder/reproducer for digital data primarily designed for use with computer systems / \$2750 up / D2

Automation Engineers—see D1

AUTONETICS, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / data recording equipment / D2

J. H. Bennell and Co.

Benson-Lehner Corp.

Century Electronics & Instruments, Inc.

Consolidated Controls Corp.—see D12

Consolidated Electrodynamics Corp.

Control Data Corp.

Convair-San Diego-Electronics

Cook Electric Co.

Cubic Corporation

Fischer & Porter Co.

Flight Research, Inc.

The Foxboro Co.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Gordon Enterprises

Hewlett-Packard Company

International Telemeter Corp.

Librascope, Inc.

Link Aviation, Inc.—see D1

Minneapolis-Honeywell Reg. Co., Davies Laboratories Division

THE NATIONAL CASH REGISTER CO., So. Main and K Sts., Dayton 9, Ohio / Various input and other business machines / DESCR: adding machines, bookkeeping machines, accounting machines and cash registers linked with paper tape punches or card punches / USE: for generating computer input simultaneously with the posting and creation of necessary original records / paper tape records, \$1050 and up; card punch couplers, \$590 and up; parent machines extra / D2
National Data Processing Corporation
National Physical Laboratory, Control Mechanisms and Electronics Division

real . . .
rational . . .
remarkable . . .

ROBOTS

for trade shows,
sales meetings,
exhibits, etc.,

*guaranteed to STOP every person
attending the show and make him
notice your display—*

RELAY MOE

A robot that will play the game Tit-Tat-Toe with a human being and either win or draw all the time, or (depending on the setting of a switch) will sometimes lose so as to make the game more encouraging for the human being. Pictured in Life Magazine, Radio Electronics. Has drawn crowds in Dallas, Texas, Atlantic City, and New York. Went to Stockholm, Sweden, for 2-week exhibit.

CYCLOPS

An improved electronic robot squirrel with a single photoelectric eye and a scoop, that will "hunt" for a "nut" indicated by a person in the audience, pick it up in his "hands", take the "nut" to his "nest", there leave it, then hunt for more nuts. Operates in lighted areas.

REMOTE CONTROL POWER SHOVEL

Miniature electric power shovel. Moves forward and back, turns right or left, raises or lowers boom, raises or lowers shovel, extends or retracts shovel. Operates at end of a cable.

"TEST YOUR NERVE" MACHINE

A game of skill, fun, mystery. This device with automatic scoreboard has a hidden photo-electric cell which triggers a series of lights. The audience participant tries to move a disc on the end of a wand in a straight line keeping the light beam covered. Each deviation is penalized by an increasing score. Comes complete with interchangeable copy plaques, extendable wands (for playing from the aisle) and different size discs (to vary the level of difficulty).

And other fascinating, intelligent small robots, finished or being developed, FRANKEN, MARBELLINA, SIMON, MAGDUM. . .

Mail this coupon (or a copy of it)

To: Berkeley Enterprises, Inc.
815 Washington St., R141
Newtonville 60, Mass.

Please send me free data on robots for rent or sale. The application we have in mind is.....

My name and address are attached.

North Electric Company
 Northam Electronics, Inc.
 Northrop Aircraft, Inc.
 Notifier Corp.
 Radiation, Inc.
 Radio Corp. of America, Electronic Data Processing Division — see D1
 Reeves Instrument Corp.
 Sanborn Company
 Servo Corp. of America
 Shand & Jurs Co.
 Southwestern Industrial Electronics Co.
 The Standard Register Co.
 Stromberg-Carlson, a Division of General Dynamics Corp.
 Technitrol Engineering Company
 Telectro Industries Corp.
 The Thompson-Ramo-Wooldridge Products Co.
 Westrex Corp.

D2A. DATA REDUCTION EQUIPMENT

Alvac Computer Div., El-Tronics, Inc.
 Andersen Laboratories, Inc.
 Avion Division-Alexandria, ACF Industries, Inc.
 Benson-Lehner Corp.
 Control Data Corp.
 Data Instruments Div. of Telecomputing Corp.
 Datex Corp.
 Di/An Controls, Inc.
 General Electric Co., Computer Dept.
 The Geotechnical Corp.
 Gordon Enterprises
 Hycon Eastern, Inc.
 Leeds & Northrup Company
 Lewyt Manufacturing Corporation
 Librascope, Inc.
 Link Aviation, Inc. — see D1
 Minneapolis-Honeywell Reg. Co., Davies Laboratories Division
 Remington Rand Div. of Sperry Rand Corp.
RICHARDSON CAMERA CO., INC., 2526 N. Ontario St., Burbank, Calif. / Photogrammetric Data Reduction and Projection Equip. / DESCR: semi-automatic reduction and recording of filmed data; 16mm, 35mm, and 70mm interchangeable precision film transport; 5 1/2", 9 1/2", and glass plate capabilities, variable speed cine-motion, stop motion, fwd-reverse; viewers and portable projectors for study, evaluation, and editing all sizes of film, special cameras / USE: to assess reduce filmed data such as missile test, aircraft test, photo panels, instrumentation recording, oscillograph and monometer recording etc. / \$3,000 to \$20,000, depending on requirements / D2A
 The Teller Company
THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / data reduction equipment / D2A
 U.S. Navy, Naval Research Lab.

D3. DELAY LINES (COMPUTER TYPES)

AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / delay lines / DESCR: computer type delay lines / USE: pulse delay / D3

Andersen Laboratories, Inc.
 Arenberg Ultrasonic Laboratory, Inc.
 Audio Instrument Co., Inc.
 Richard D. Brew & Co., Inc.
 Coilcraft, Inc.
 Columbia Technical Corp.
 Computer Engineering Assoc., Inc.
 Control Electronics Co., Inc.
 Corning Glass Works
 Deltime, Inc.
 Dilectron Div. of the Gudeman Co.
 Edo Corp.
 Electrometric Division of Whitewater Electronics, Inc.
 El-Rad Mfg. Co.
 Epsco Components
ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Delay Lines / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / D3
FERRANTI ELECTRIC, INC., 95 Madison Ave., Hempstead, N.Y. / magnetostriction delay lines, L20, L30, L35, L40 and amplifiers AL100 and AL200 and specials / DESCR: delays up to 5 milliseconds with taps, bit rates up to 1 Mc/s, bandwidth (3 db points) up to 1 Mc/s about 1 Mc/s carrier. Temperature coefficient less than 1 ppm/°C where required / USE: digital storage, stable delays, signal integration / \$100 to \$300 / D3
 General Electric Co., Electronic Components Dept.
 General Electric Co., Semiconductor Products Dept.
 Gulton Industries, Inc.
 Helipot Division of Beckman Instruments, Inc.
 Litton Industries, Components Div.
 The Ralph M. Parsons Co.
 PCA Electronics Inc.
 Polyphase Instrument Co.
 Sturup, Inc.
 Technitrol Engineering Company
 Valor Instruments, Inc.
 Whitewater Electronics, Inc.

D4. DESK CALCULATORS

FRIDEN, INC., San Leandro, Calif. / automatic desk calculators / DESCR: add, subtract, multiply, divide automatically; wide variety of styles including Model SRW for automatic extraction of square root and new Model SBT with automatic "back transfer," grand totals, and fractional-cent adjustment / USE: desk calculation of all kinds / \$475 to \$1300 (taxes not included) / D4
 Marchant Calculators Division of Smith-Corona Marchant Inc.
 Olivetti Corp. of America
 Remington Rand Div. of Sperry Rand Corp.
 Vaucanson

D5. DIALS

Sterling Precision Corp.

D6. DIFFERENTIAL ANALYZERS

AUTONETICS, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / differential analyzers / D6

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / DA-1 digital differential analyzer / DESCR: 104 integrators, 104 constant multipliers. Operates as accessory to Bendix G-15 general purpose digital computer. Uses all G-15 input-output devices (see C24). Can be used as DDA alone when connected to G-15 or as combination general purpose computer and DDA / USE: easy solution to differential equations / \$13,700, sale; \$550 a mo., lease (G-15 general purpose computer also required) / D6
 Computer Control Co., Inc.
 Donner Scientific Co.
 Ferranti-Packard Electric Ltd.
GENERAL ELECTRIC CO., Schenectady, N.Y. / differential analyzer / see C27 / D6
 General Electric Co., Computer Dept.
 Moore School of Electrical Engineering
 Packard Bell Computer Corp.
 Reeves Instrument Corp.
 Vectron, Inc.

D7. DIODES (COMPUTER TYPES)

Amperex Electronic Co.
 Hoffman Electronics Corp.
 International Rectifier Corp.
 Kemtron Electron Products, Inc.
 Pacific Semiconductors, Inc.
 Qutronic Semiconductor Corp.
 Radio Corp. of America, Semiconductor and Materials Division
RAYTHEON MFG. CO., SEMICONDUCTOR DIV., 215 First Ave., Needham Hgts. 94, Mass. / semiconductor diodes and rectifiers / DESCR: silicon and germanium diodes, silicon rectifier / USE: computer and related uses / — / D7
 Rex Corp.
 Sylvania Electric Products, Inc., Semiconductor Div.
 Thermosen, Inc.
 Transistor Products, Inc.
 Tung-Sol Electric, Inc.
 Westinghouse Electric Corporation, Semiconductor Department

D8. DIODES (COMPUTER TYPES), GERMANIUM

Allgemeine Elektricitäts-Gesellschaft
 Amperex Electronic Co.
 Cleveite Transistor Products
 Federal Telephone and Radio Co.
 General Electric Co., Semiconductor Products Dept.
 General Instrument Corp., Semiconductor Div. and Automatic Mfg. Div.
 General Transistor Corp.
 Hughes Aircraft Company, Semiconductor Div.
 Kemtron Electron Products, Inc.
 Philco Corp., Lansdale Tube Co. Div.
 Raytheon Mfg. Co., Semiconductor Division — see D7, R10
 Transistron Electronic Corp.
 United States Dynamics Corp.
 Westinghouse Electric Corporation, Semiconductor Department

D9. DIODES (COMPUTER TYPES), POWER

Amperex Electronic Co.
 Cleveite Transistor Products
 Ferranti-Packard Electric Ltd.
 International Rectifier Corp.

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Kemtron Electron Products, Inc.
Raytheon Mfg. Co., Semiconductor Division — see D7, R10
Vickers, Inc.
Westinghouse Electric Corporation, Semiconductor Department

D10. DIODES (COMPUTER TYPES), SILICON

Amperex Electronic Co.
AUDIO DEVICES, INC., SILICON RECTIFIER DIV., 620 E. Dyer Rd., Santa Ana, Calif. / silicon diodes / D10
Clevite Transistor Products
Ferranti-Packard Electric Ltd.
General Electric Co., Semiconductor Products Dept.
General Instrument Corp., Semiconductor Div. and Automatic Mfg. Div.
Helipot Division of Beckman Instruments, Inc.
Hughes Aircraft Company, Semiconductor Div.
International Rectifier Corp.
Kemtron Electron Products, Inc.
P. R. Mallory & Co., Inc.
Motorola, Inc., Semiconductor Products Division
Philco Corp., Lansdale Tube Co. Div.
Sperry Semiconductor Division of Sperry Rand Corp.
Texas Instruments, Inc.
United States Dynamics Corp.
U.S. Semiconductor Products, Inc.

D11. DISCS, MAGNETIC

BRYANT COMPUTER PRODUCTS DIV., Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, magnetic heads. Magnetic memory systems and components, standard units or designed to customer specifications. Air bearings, super precision ball bearings. Belt drive, integral motor drive, speeds to 200,000 RPM, capacities to 120,000,000 bits / USE: memory systems / \$1,000 to \$50,000 / D11

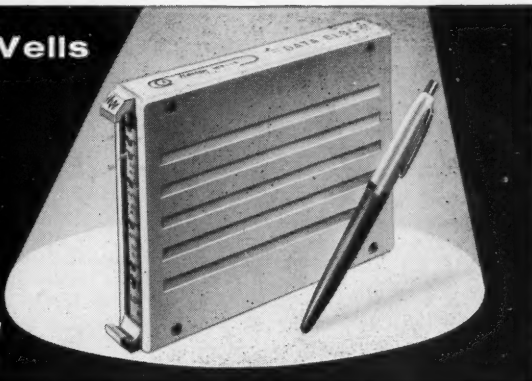
General Electric Co., Computer Dept.
THE WHITON MANUFACTURING CO., Route 6 and New Britain Ave., Farmington, Conn. / magnetic discs / DESCR: Precision rotary devices for magnetic storage; speeds of 60 rpm to 30,000 rpm or higher, with eccentricity under fifty millionths (.00005"). Diameters to 16", lengths to 48". Integral motor drive or belt drive. Special drums manufactured to customer's requirements / \$500 and up / D11

D12. DRUMS, MAGNETIC

Aeronutronic Systems, Inc.
Alvac Computer Div., El-Tronics, Inc.
BRYANT COMPUTER PRODUCTS DIV., Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, magnetic heads. Magnetic memory systems and components, standard units or designed to customer specifications. Air bearings, super precision ball bearings. Belt drive, integral motor drive, speeds to 200,000 RPM, capacities to 120,

Harvey-Wells

HERE
NOW



5 mc Data Bloc • Data-Pac

Versatile, High-Speed digital building blocks for data handling, data conversion systems . . . special purpose counters . . . process control and automation . . . laboratory research and test equipment.

NMR instrumentation, electromagnets and power supplies,
error signal comparator . . . digital components.



HARVEY-WELLS ELECTRONICS, INC.

Research and Development Division

5168 WASHINGTON ST., WEST ROXBURY 32, MASS.

000,000 bits / USE: memory systems
/ \$1,000 to \$50,000 / D12

CONSOLIDATED CONTROLS CORP., Bethel, Conn. / magnastat recording drum / DESCR: magnetic drum for digital information storage whose output is totally independent of drum speed / USE: program control, automation, robot memory (depends on application) / price on request / D12

Di/An Controls, Inc.

FERRANTI ELECTRIC, INC., 95 Madison Ave., Hempstead, N.Y. / magnetic storage drums 200B, 1009, 1201A and specials / DESCR: 200B: 20,000 bits 2.5 millisecc access, small size, 20 tracks. 1009: 400,000 bits, 144 tracks, up to 6000 RPM, can be synchronized to external clock. 1201A: 2,200,000 bits, 200 tracks, air bearing, air servoed head columns / USE: 200B, buffer storage or small volume main storage; 1009, 1201A, main storage — can be used in multiple, also available as storage unit with complete electronics / 200B, \$3000 to \$1500 with heads; 1009, \$14,000 with heads; 1201A, about \$20,000 with heads / D12

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.

Imtra Corp.

Laboratory for Electronics, Inc.

Librascope, Inc.

Librascope, Inc., Commercial Division
Minneapolis - Honeywell Regulator Co.,

Florida Inertial Guidance Center

Norton Associates, Inc. — see H1

Radio Corp. of America, Electronic Data Processing Division — see D1

Strand Engineering Co.
Wharf Engineering Lab

THE WHITON MANUFACTURING CO., Route 6 and New Britain Ave., Farmington, Conn. / magnetic drums / DESCR: Precision rotary devices for magnetic storage; speeds of 60 rpm to 30,000 rpm or higher, with eccentricity under fifty millionths (.00005"). Diameters to 16", lengths to 48". Integral motor drive or belt drive. Special drums manufactured to customer's requirements / \$500 and up / D12

Wright Engineering Co.

E0. ECONOMIC RESEARCH

Automation Engineers — see C30
C-E-I-R, Inc. — see C27
Midwest Research Institute

E1. EDUCATION

DATAMATIC DIV., MINNEAPOLIS-

HONEYWELL REGULATOR CO., 151 Needham St., Newton Highlands 61, Mass. / classes in data processing / DATAMatic Division, Minneapolis-Honeywell conducts classes in data processing including 2 and 3-day executive survey sessions, one and two-week introductory courses and a 6-week operating and programming course. Classes are conducted regularly at DATAMatic's main offices in Newton, Mass. and periodically in leading cities throughout the country. Attendance by invitation / No charge / E1
Moore School of Electrical Engineering
Stanford Computation Center

E2. EMBEDDED ASSEMBLIES AND COMPONENTS

Di/An Controls, Inc.
International Rectifier Corp.
International Resistance Company
Johnson Electronics Inc.
Technitrol Engineering Company

F1. FACSIMILE EQUIPMENT

Addressograph-Multigraph Corp.
Alden Electronic and Impulse Recording Equipment Co.

AMPEX CORP., INSTRUMENTATION DIV., 934 Charter St., Redwood City, Calif. / Ampex Faxtape Recorder / DESCR: a magnetic tape recorder / reproducer for receiving, storing, and retransmitting facsimile data / USE: records and reproduces in direct conjunction with commercial transceivers / \$12,000 / F1

Automation Engineers — see D1
Eastman Kodak Co.
Technitrol Engineering Company
Telectro Industries Corp.

F1A. FANS AND BLOWERS

Lewyt Manufacturing Corporation
Rotron Manufacturing Co.

F2. FASTENERS AND FASTENING DEVICES

Hydro Molding Co., Inc.

F3. FIRE CONTROL EQUIPMENT

Arma Div., American Bosch Arma Corp.
Atlas Precision Products Co.
Avco Mfg. Corp.
Control Instrument Co.
Corbin Corp.
Daystrom Instrument, Div. of Daystrom, Inc.
Eastman Kodak Co.
Feedback Controls, Inc.
Fenwal, Inc.
Ferranti-Packard Electric Ltd.
Ford Instrument Co.
Gordon Enterprises
N. V. Hollandse Signaalapparaten
Hughes Research & Development Laboratories
Kidde Ultrasonic & Detection Alarms, Inc.
Lewyt Manufacturing Corporation
Librascope, Inc.
The W. L. Maxson Corp.
Norden Division of United Aircraft Corp.
Notifier Corp.
Philco Corp., Government & Industrial Div. — see C24, C31
Servo Corp. of America
Sterling Precision Corp.

G1. GENERATORS, FUNCTION

Donner Scientific Co.
Electrol, Inc.
Elgenco, Inc.
Ferranti-Packard Electric Ltd.
General Electric Co., Computer Dept.
The A. W. Haydon Company
Hewlett-Packard Company
Intercontinental Dynamics Corp.
Kaiser Metal Products, Inc.
Kay Electric Co.
Link Aviation, Inc. — see C23, C24, and G2
Mid-Century Instrumatic Corp.

Packard Bell Computer Corp.
Statistical Instrument Co.

G2. GENERATORS, FUNCTION, ELECTRONIC

Donner Scientific Co.
Fairchild Controls Corp., Components Div.
General Electric Co., Computer Dept.
Hewlett-Packard Company
Lewyt Manufacturing Corporation

LINK AVIATION, INC., Binghamton, N.Y. / Electronic Function Generators / Multiple-variable Universal Analog and Digital Function Generators. Complete Digital assembly accommodates 64 simultaneous analog inputs while providing 80 analog outputs; capacity even greater for straight digital input/output situation. Also available, tappable and re-tappable 2" potentiometers for analog approximation / G2
George A. Philbrick Researches, Inc.
Rutherford Electronics Co.
Vernistat Division of the Perkin-Elmer Corp.

G3. GENERATORS, FUNCTION, MECHANICAL

Atlas Precision Products Co.
Librascope, Inc., Commercial Division
Telectro Industries Corp.

G4. GEOPHYSICAL APPARATUS

Curtiss-Wright Corp., Electronics Div.
Gordon Enterprises
Lewyt Manufacturing Corporation
Moran Instrument Corp.
Southwestern Industrial Electronics Co.

H1. HEADS, MAGNETIC

Alvac Computer Div., El-Tronics, Inc.
Avco Mfg. Corp.
BRYANT COMPUTER PRODUCTS DIV., Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, magnetic heads. Magnetic memory systems and components, standard units or designed to customer specifications. Air bearings, super precision ball bearings. Belt drive, integral motor drive, speeds to 200,000 RPM, capacities to 120,000,000 bits / USE: memory systems / \$1,000 to \$50,000 / H1
Consolidated Controls Corp. — see D12
Ferranti-Packard Electric Ltd.
General Electric Co., Computer Dept.
Laboratory for Electronics, Inc.
Librascope, Inc.
Librascope, Inc., Commercial Division
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division
NORTON ASSOCIATES, INC., P.O. Box 96, Garden City, N.Y. / Magnetic heads / DESCR: design and manufacture of standard and special magnetic record, playback, and erase heads in single and multi-track arrangements for magnetic tape, film, wire, drum and magnetic ink character recognition. Design services in digital computing instrumentation and applications / USE: in instrumentation for long and short memory / wide price range / H1

Radio Corp. of America, Electronic Data Processing Division — see D1
Telectro Industries Corp.
Westrex Corp.
Wharf Engineering Lab
Wright Engineering Co.

H2. HEADS, MAGNETIC, READING

General Electric Co., Computer Dept.
Librascope, Inc.
Librascope, Inc., Commercial Division
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division
Monroe Calculating Machine Co.
Norton Associates, Inc. — see H1
Radio Corp. of America, Electronic Data Processing Division — see D1
Telectro Industries Corp.

H3. HEADS, MAGNETIC, RECORDING

General Electric Co., Computer Dept.
Librascope, Inc.
Librascope, Inc., Commercial Division
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division
Monroe Calculating Machine Co.
Norton Associates, Inc. — see H1
Radio Corp. of America, Electronic Data Processing Division — see D1
Telectro Industries Corp.
Smith-Corona Marchant, Inc.

I1. INDICATORS (COMPUTER TYPES)

Aero Electronics Co.
Amperex Electronic Co.
Bowmar Instrument Corp.
Burroughs Corp., Electronic Tube Div.
Convair-San Diego-Electronics
DIALIGHT CORP., 60 Stewart Ave. Brooklyn 37, N.Y. / Indicator Lights (Dialco) / DESCR: complete line of indicator lights and pilot lights for every application. For the computer automation fields: ultra-miniature (3/8" mounting) indicator lights, trade named "Datalites," and made in 2 basic styles: lamp holders with Dialco replaceable lamp cartridges; also integrated with "Datalites" with built-in neon lamps that are not replaceable. Also Data-Strip and Data-Matrix for computers, etc. / I1
Di/An Controls, Inc.
Fenwal, Inc.
Industrial Development Engineering Associates, Inc.
The Kybernetes Corp.
Librascope, Inc.
Link Aviation, Inc. — see C39
NON-LINEAR SYSTEMS, INC., Del Mar Airport, Del Mar, Calif. / digital readouts / DESCR: displays up to 12 symbols or messages per window. Standard units have up to 6 windows in 3 window sizes. Display is actuated by energizing the one proper lamp out of the 12 lamps per window. No moving parts. Only 1 1/2" deep. Message display plates are easily changed by use / USE: for displaying alphanumeric or other symbolic data available in contact closure or voltage form from computers, analog-to-digital converters, etc. / \$25 to \$150 / I1
The Ralph M. Parsons Co.
Union Switch & Signal

12. IN...
DEVI...
AMPEX...
934 Ch...
FR-300...
magne...
cers fo...
comput...
devices...
system...
etc. / ...
reprod...
designe...
tems / ...
Bendix...
Div...
Benson-L...
Computer...
General...
The Geo...
Hall, R...
JONKER...
3939 I...
15, D...
vices / ...
of "TI...
— / ...
Laborat...
Librasco...
Stereotr...
Stromber...
Dynam...
Zator Co...
13. INP...
Addo-x...
AERONU...
subsidi...
PUTER...
port Be...
entry c...
tronic...
simple...
into a...
skilled...
sage co...
entry, a...
entry...
sages f...
process...
cessing...
or rece...
require...
depend...
AMPEX...
934 Cha...
FR-300...
magne...
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comput...
vices fo...
tems, / ...
etc. / ...
reprodu...
designe...
tems / ...
Avion Div...
Bendix A...
Div...
Benson-L...
Century E...
Chrono-log...
Computer...
Convair-Sa...
Creed and...
Dennison...
THE COM

12. INFORMATION RETRIEVAL DEVICES

AMPEX CORP., Instrumentation Div., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic tape recorder/reproducer for digital data primarily designed for use with computer systems / \$2750 up / I2

Bendix Aviation Corp., Bendix-Pacific Div.

Benson-Lehner Corp.
Computer Control Co., Inc.

General Electric Co., Computer Dept.
The Geotechnical Corp.

Haller, Raymond, & Brown, Inc. — see I7
JONKERS BUSINESS MACHINES, INC., 3939 Legation St., N.W., Washington 15, D.C. / Information Retrieval Devices / DESCR: manufacture and sales of "TERMATREX" search systems / — / — / I2

Laboratory for Electronics, Inc.

Librascope, Inc.

Stereotronics

Stromberg-Carlson, a Division of General Dynamics Corp.

Zator Co.

Di/An Controls, Inc.

Elliott Bros. (London) Ltd.

Epsco, Inc.

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Hewlett-Packard Company

International Development Engineering Assoc., Inc.

International Computers & Tabulators Limited

Lewyt Manufacturing Corporation
Librascope, Inc.

Librascope, Inc., Commercial Division

Link Aviation, Inc. — see C39, D1, and G2

Minneapolis-Honeywell Reg. Co., Davies Laboratories Division

Minneapolis-Honeywell Regulator Co., Florida Inertial Guidance Center

Moran Instrument Corp.

National Data Processing Corporation

Radio Corp. of America, Electronic Data Processing Division — see D1

Ransom Research

Remington Rand Div. of Sperry Rand Corp.

Sanborn Company

Shepard Laboratories, Inc.

Société d'Electronique et d'Automatisme

The Standard Register Co.

The Teller Company

UNDERWOOD CORPORATION, One

Park Ave., New York 16, N.Y. / input/output devices / DESCR: servotyped — solenoid operated electric typewriters. Mastertypers — electric typewriters actuating switches for simultaneous coded and uncoded input. Servomasters — electric typewriters with solenoids and switches for input and/or output. Totalizers — 2-register, 11-digit, 10-key adding subtracting machine with solenoids for all functions, and with numerical and sign storage switch buffer, for input and output. See also Data-Flow under D1, and T18 / USE: output printers, or input keyboards for all digital or analog/digital equipment / Servotyped from \$750; Servomasters from \$1,100; Mastertypers from \$850; Totalizers from \$1,100 / I3

The Walkirt Co.

Wright Engineering Co.

14. INTEGRATORS

Andersen Laboratories, Inc.

Avion Division, ACF Industries, Inc.

Ford Instrument Co.

General Electric Co., Computer Dept.

Librascope, Inc.

Link Aviation, Inc. — see C23 and C24

Telectro Industries Corp.

15. INTEGRATORS, ELECTRONIC

General Electric Co., Computer Dept.

Lewyt Manufacturing Corporation

Librascope, Inc.

Link Aviation, Inc. — see C23 and C24

Packard Bell Computer Corp.

George A. Philbrick Researches, Inc.

Reeves Instrument Corp.

Telectro Industries Corp.

Weston Instruments

A Logical Deduction

Because ordinary magnetically-regulated power supplies are too sluggish to handle load and line transients,

Because NJE refused to be satisfied with such performance, and developed, back in 1956, a fundamentally superior circuit,

Because this thoroughly proven circuit uses the speed and power-gain of a transistor amplifier to force rapid response from the magnetic amplifier,

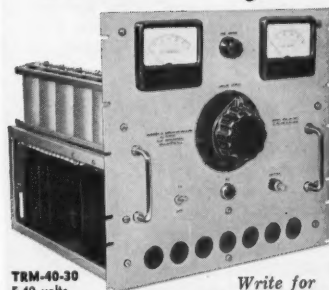
Because the transistors are never in the power path, but handle low-level signals only,

Because this transistor-magnetic—"TRM"—circuit retains the reliability and economy of magnetically-regulated supplies, but greatly improves speed of response (15 mil-sec. typical) widens operating range (8:1 typical) and tightens regulation (0.1% typical),

Because TRM supplies can be "zero-lagged" against line and load transients,

It follows that NJE TRM is your best buy in a magnetically-regulated power supply!

QED... choose NJE



TRM-40-30
5-40 volts
0-30 amperes

Write for
complete catalog

MODEL	OUTPUT RANGE	
	VOLTS	AMPERES
TRM-28-30	24-32	0-30
TRM-28-80	24-32	0-60
TRM-28-120	24-32	0-120
TRM-40-15	5-40	0-15
TRM-40-30	5-40	0-30
TRM-40-60	5-40	0-60
TRM-40-120	5-40	0-120
TRM-80-7.5	10-80	0-7.5
TRM-80-15	10-80	0-15
TRM-80-30	10-80	0-30
TRM-80-60	10-80	0-60
TRM-160-7.5	20-160	0-7.5
TRM-160-15	20-160	0-15
TRM-160-30	20-160	0-30

NJE CORPORATION

345 Carnegie Avenue, Kenilworth, New Jersey
CH 1-1500 TWX-Roselle, N. J. 51 FAX-FFP

16. INTEGRATORS, MECHANICAL
Bendix Aviation Corp., Eclipse-Pioneer Div.
Librascope, Inc.
Librascope, Inc., Commercial Division

17. INVENTORY SYSTEMS
Bendix Aviation Corp., Eclipse-Pioneer Div.

Booz, Allen and Hamilton
Ferranti-Packard Electric Ltd.
HALLER, RAYMOND, & BROWN, INC., Science Park, State College, Pa. / Inventory Control Systems / DESCR: This desk-top size data processing machine solves inventory control problems at a fraction of the cost of comparable equipment. Ideal for small and medium size businesses. Recorded or telephone output; input from telephone, punch-card, sorter, etc. / USE: Gives audible signal or printed inventory level of an item upon receiving the appropriate telephone dial signal from an inquirer / Between \$10,000 and \$15,000 / I7

PDP Division American Electronics, Inc.
Remington Rand Div. of Sperry Rand Corp.

J1. JACKS
Accurate Electronics Corp.
Aerovox Corp.
Burndy Corporation, Omaton Div.
Cambridge Thermionic Corporation
Cinch Manufacturing Corp.

K1. KEYBOARDS
SOROBAN ENGINEERING, INC., Box 1717, Melbourne, Fla. / Coding Keyboards / DESCR: specialized and custom-made keyboard units for use in automatic control applications / — / \$390 to \$850 / K1

L1. LIGHTS, INDICATOR
DIALIGHT CORP., 60 Stewart Ave., Brooklyn 37, N.Y. / Indicator Lights (Dialco) / DESCR: complete line of indicator lights and pilot lights for every application. For the computer-automation fields: ultra-miniature ($\frac{3}{8}$ " mounting) indicator lights, trademarked "Datalites," and made in 2 basic styles: lamp holders with Dialco replaceable lamp cartridges; also integrated with "Datalites" with built-in neon lamps that are not replaceable. Also Data-Strip and Data-Matrix for computers, etc. / L1

Electrosnap Corp.
The Walkirt Co.

M1. MAGNETS
Aerovox Corp.
THE ARNOLD ENGINEERING CO., P.O. Box G, Marengo, Ill. / magnets (see also C52) / M1
The Indiana Steel Products Co.
The Yale & Towne Manufacturing Co.

M2. MEMORY SYSTEMS
AERONUTRONIC SYSTEMS, INC. (a subsidiary of Ford Motor Co.), COMPUTER DIVISION, Ford Rd., Newport Beach, Calif. / Complete magnetic drum memory systems / DESCR: Standard and special magnetic drum memory systems. These feature drums with

high-precision coating, high pulse density, pre-recorded tracks if desired, and high read signal; and solid state printed circuit read and write amplifiers and associated logic / USE: in general and special purpose digital data processing equipment / depends on type and quantity / M2

Airtronics, Inc.
AMPEX CORP., Instrumentation Div., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic tape recorder/reproducer for digital data primarily designed for use with computer systems / \$2750 up / M2
B J Electronics, Borg-Warner Corp.

BRYANT COMPUTER PRODUCTS DIV., Box 620, Springfield, Vt. / magnetic memory systems / DESCR: magnetic drum and disc memory systems, precision electromechanical devices, high-speed motors, drums, discs, magnetic heads. Magnetic memory systems and components, standard units or designed to customer specifications. Air bearings, super precision ball bearings. Belt drive, integral motor drive, speeds to 200,000 RPM, capacities to 120,000,000 bits / USE: memory systems / \$1,000 to \$50,000 / M2

Canadian Westinghouse Co. Ltd.
Computer Control So., Inc.
Daystrom Systems, Div. of Daystrom, Inc.
Di/An Controls, Inc.
Ferranti-Packard Electric Ltd.
Ford Instrument Co.
General Electric Co., Computer Dept.
Gulton Industries, Inc.
Hycon Eastern, Inc.
Librascope, Inc.
Edwin A. Lipps Engineering
Miles Reproducible Co., Inc.
Minneapolis-Honeywell Regulator Co., Florida Inertial Guidance Center
Norton Associates, Inc. — see H1
Pacific Magnetic Corp.
Radio Corp. of America, Electronic Data Processing Division — see D1
J. B. Rea Co., Inc.
Rese Engineering, Inc.
Strandberg Engineering Lab., Inc.
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

TELEMETER MAGNETICS, INC., 2245 Pontius Ave., Los Angeles 64, Calif. / Magnetic Core Memories / DESCR: Random access small and large scale core memories. Capacities from 100 to 1 million bits. Cycle times from 2 to 30 microseconds / USE: Rapid access random storage in digital computing, automatic control, and data processing / \$50,000 — \$500,000 / M2
Wang Laboratories

M2A. MOLDED PLASTICS
Accurate Electronics Corp.
Hydro Molding Co., Inc.

M3. MULTIPLIERS
Aeronca Mfg. Corp.

DIT-MCO, Inc.
Donner Scientific Co.
Mid-Century Instrumatic Corp.

M4. MULTIPLIERS, DIODE
Andersen Laboratories, Inc.
International Rectifier Corp.

M5. MULTIPLIERS, ELECTRONIC
Andersen Laboratories, Inc.
Chadwick-Helmuth Co.
Di/An Controls, Inc.
Donner Scientific Co.
General Electric Co., Computer Dept.
Link Aviation, Inc. — see C23 and C24
National Co., Inc.
George A. Philbrick Researches, Inc.

M6. MULTIPLIERS, FREQUENCY
American Research & Mfg. Corp.
Andersen Laboratories, Inc.
Hycon Eastern, Inc.
National Co., Inc.

M7. MULTIPLIERS, SERVO
Andersen Laboratories, Inc.
Atlas Precision Products Co.
Thomas A. Edison Industries
Feedback Controls, Inc.
Industrial Control Co.
Link Aviation, Inc. — see C23
Sterling Precision Corp.

O1. OFFICE MACHINES
Addo-x, Inc.
Automation Engineers — see D1
Fabrica Addizionatrice Italiana S.S.
Ferranti-Packard Electric Ltd.
General Kinetics Incorporated
International Computers & Tabulators Limited

Monroe Calculating Machine Co.
THE NATIONAL CASH REGISTER CO., So. Main and K Sts., Dayton 9, Ohio / Various input and other business machines / DESCR: adding machines, bookkeeping machines, accounting machines and cash registers linked with paper tape punches or card punches / USE: for generating computer input simultaneously with the posting and creation of necessary original records / paper tape records, \$1050 and up; card punch couplers, \$590 and up; parent machines extra / O1

Olivetti Corp. of America
Remington Rand Div. of Sperry Rand Corp.
The Standard Register Co.
Victor Adding Machine Co.

O2. OPERATIONS RESEARCH
American Machine & Foundry Co.
Automation Engineers — see C30
Booz, Allen Applied Research, Inc.
Booz, Allen and Hamilton
BROADVIEW RESEARCH CORP., 1811 Trousdale Drive, Burlingame, Calif. / operations research / DESCR: inventory and production control, distribution, transportation and scheduling; optimization problems, queueing theory, military operations research and systems simulation / O2

C-E-I-R, INC. (Formerly Corporation for Economic and Industrial Research), 1200 Jefferson Davis Highway, Arlington 2, Va.; N.Y. Office: 110 E. 42nd St., New York, N.Y. / IBM 704 and

709 Computers with 32K memory / DESCR: full line of peripheral data processors. Computing and peripheral equipment available on hourly rate basis. Specialists in the application of modern analytical techniques to government, business, and financial problems. Offer a full range of services in operations research, computing, programming, data processing, sample design, market research, problem formulation, mathematical structuring / — / Hourly rates and zone allowance plan / O2

H. S. Gellman & Co., Ltd. — see C30

H. B. Maynard & Co., Inc.

Midwest Research Institute

National Analysts, Inc.

Remington Rand Div. of Sperry Rand Corp.

Scientific Computing Service

Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations

TECHNICAL OPERATIONS, INC., Burlington, Mass. / operations research / DESCR: Industrial, commercial and military operations research / O2

U.S. Naval Proving Ground

University of California, Dept. of Mathematics

The George Washington University

Westgate Laboratory, Inc.

P1. PANELS

Accurate Electronics Corp.

Burdny Corporation, Omaton Div.

The Datics Corp.

DeJur-Amsco Corp.

Panellit, Inc.

P2. PANELS, JACK

Accurate Electronics Corp.

Cambridge Thermionic Corporation

The Datics Corp.

P4. PAPER TAPE

Digital Service Labs

P5. PATCH CORDS

Alden Products Co.

AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / patchcords / — / USE: computer circuitry / P5

P6. PLOTTERS

Alden Electronic and Impulse Recording Equipment Co.

Alden Products Co.

Alwac Computer Div., El-Tronics, Inc.

Atlas Precision Products Co.

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / digital point plotter / DESCR: plots 20 increments of 0.1 inch/second. For use only with Bendix G-15 general purpose digital computer or Bendix DA-1 digital differential analyzer accessory (see C-24) / USE: plotted digital computer output for scientific user, etc. / \$1800 sale, \$75/mo. lease / P6

Benson-Lehner Corp.

Electronic Associates, Inc.

Librascope, Inc., Commercial Division

Link Aviation, Inc. — see D1

Mid-Century Instrumatic Corp.

Sterling Precision Corp.

Sunshine Scientific Instrument Co.

Tally Register Corp.

Westgate Laboratory, Inc.

P6A. PLUGBOARDS

AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / plugboards / DESCR: Programming plugboards and systems / P6A

Burdny Corporation, Omaton Div.

The Datics Corp.

P7. POTENTIOMETERS (COMPUTER TYPES)

Ace Electronics Associates, Inc.

Allen-Bradley Co.

Analogue Controls, Inc.

George W. Borg Corp. — Borg Equipment Div.

Bourns Laboratories, Inc.

Clarostat Mfg. Co., Inc.

Computer Instruments Corp.

Dale Products, Inc.

DeJur-Amsco Corp.

Electro-Mec Laboratory, Inc.

Fairchild Controls Corp., Components Div.

The Gamewell Co.

Helipot Division of Beckman Instruments, Inc.

Ketay Dept. Norden Division United Aircraft Corp.

Link Aviation, Inc. — see C23

Litton Industries, Components Div.

P. R. Mallory & Co., Inc.

Markite Corporation

Maurey Instrument Corp.

Norden Division of United Aircraft Corp.

The Perkin-Elmer Corp.

Specialties, Inc.

Spectrol Electronics Corp.

Sterling Precision Corp.

Technology Instrument Corp.

Vernistat Division of the Perkin-Elmer Corp.

Westronics, Inc.

P8. POWER SUPPLIES — REGULATED

American Research & Mfg. Corp.

Avion Division, ACF Industries, Inc.

Baird-Atomic Co.

Condenser Products Div. New Haven Clock & Watch Co.

Consolidated Avionics Corp.

The Daven Co.

Electronic Specialty Co.

Engineered Electronics Co.

Ferranti-Packard Electric Ltd.

GENERAL ELECTRIC CO., LOW VOLTAGE SWITCHGEAR DEPT., Mountain View Rd., Lynchburg, Va. / computer d-c power supplies / DESCR: complete d-c power supplies for computer system or computer components featuring regulated power supplies with silicon rectifiers, magnetic amplifiers, transistors, and controlled rectifiers / USE: to furnish d-c power to any requirement of a computer component or computer system / \$100 to \$250,000 / P8

Gulton Industries, Inc.

Harrison Laboratories, Inc.

HARVEY-WELLS ELECTRONICS, INC.,

Research and Development Div., 5168

Washington St., West Roxbury 32,

IN THE COMPUTER FIELD

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Basic Source Information,
Available to You from

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815 Washington St., Newtonville 60, Mass.

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Mass. / building blocks / DESCR: 5-megacycle Data Bloc and Data Pac, high speed digital logic building blocks, an entirely new concept in computer control systems. Logic units, decade scalars, shift registers, counters and power supplies are included in the Harvey-Wells line of digital building blocks / USE: in data handling, data conversion, process control and automation, missile tracking systems and radar simulation. The Data Bloc units are primarily intended for planning and prototype work. Data Pacs are used for subsequent production runs / — / P8

Hewlett-Packard Company
Jefferson Electronic Products Corp.
Kepco, Inc.

Leeds & Northrup Company
Moran Instrument Corp.

NJE CORPORATION, Kenilworth, N.J.
/ electronic power supplies / DESCR: low voltage, high current, high voltage, low current. Regulated and unregulated. Utilizing vacuum tube, ohyratren rectifiers, transistors, and magnetic amplifier circuitry / USE: to convert AC to DC current / \$250 to \$6000 per unit / P8

Northam Electronics, Inc.
Pad Electric Co.
Ortho Filter Corp.
Owen Laboratories, Inc.
Pacific Magnetic Corp.
Packard Bell Computer Corp.
Plastic Capacitors, Inc.
Radiation Counter Laboratories, Inc.
Radio Receptor Co.
Sangamo Electric Co.
Sola Electric Co.
Sorenson & Company, Inc.
Spectrol Electronics Corp.

TECHNICAL OPERATIONS, INC., Burlington, Mass. / power supplies / DESCR: transistorized power supplies for computer systems / P8

Trans Electronics, Inc.
Valor Instruments, Inc.
Vickers, Inc.
Wheeler Electronic Corp.

P9. PRINTERS

Addressograph-Multigraph Corp.
Elliott Addressing Machine Co.
Hewlett-Packard Company
A. Kimball Co.
Radio Corp. of America, Electronic Data Processing Division — see D1
Rand Precision Industries Ltd.
Soroban Engineering, Inc. — see T18
Teletype Corp.
Underwood Corporation — see I3

P10. PRINTERS, HIGH SPEED

Analex Corp.
Clarkson Press, Inc.
Computer-Measurements Corp.
General Electric Co., Computer Dept.
International Computers & Tabulators Limited
Potter Instrument Company, Inc.
Radio Corp. of America, Electronic Data Processing Division — see D1
Rand Precision Industries Ltd.
Remington Rand Div. of Sperry Rand Corp.

Société d'Electronique et d'Automatisme Stromberg-Carlson (West Coast)

TECHNITROL ENGINEERING COMPANY, 1952 E. Allegheny Ave., Philadelphia 34, Pa. / high speed print station / DESCR: high speed print station, analex synchroprinter output. 1000 lines per minute of any 64 character 6 bit code. On-line or off-line operation. Accepts magnetic tape input, performs parity check up to 1024 character storage / USE: on-line and off-line printing of output of high speed digital computers such as IBM 600 and 700 series computers, including the 7070 and 7090 / \$80,000 and up / P10

P11. PRINTERS, KEYBOARD

Remington Rand Div. of Sperry Rand Corp.
Underwood Corporation — see I3

P12. PRINTERS, LINE-A-TIME

General Electric Co., Computer Dept.
POTTER INSTRUMENT COMPANY, INC., Plainview, N.Y. / high speed alphanumeric printer / DESCR: up to 120 column line printer completely integrated with solid state storage and programming electronics tailored type fonts and format controls along with installation coupling devices / USE: output display of data system, logger, or listing / \$5,000 to \$60,000 / P12

Rank Precision Industries Ltd.
Remington Rand Div. of Sperry Rand Corp.

P12A. PROGRAMMING SERVICES

ADB Institutet
American Machine & Foundry Co.
Automation Engineers — see C30
Battelle Memorial Institute
Booz, Allen and Hamilton
Booz, Allen Applied Research, Inc.
Brender and Brender, Inc.

BROADVIEW RESEARCH CORP., 1811 Trousdale Drive, Burlingame, Calif. / programming services / DESCR: programming, scientific calculations, military applications, business and engineering calculations, conceptual design of systems, systems analysis and simulation / P12A

Canadian Westinghouse Co. Ltd.

C-E-I-R, INC. (Formerly Corporation for Economic and Industrial Research), 1200 Jefferson Davis Highway, Arlington 2, Va.; N.Y. Office: 110 E. 42nd St., New York, N.Y. / IBM 704 and 709 Computers with 32K memory / DESCR: full line of peripheral data processors. Computing and peripheral equipment available on hourly rate basis. Specialists in the application of modern analytical techniques to government, business, and financial problems. Offer a full range of services in operations research, computing, programming, data processing, sample design, market research, problem formulation, mathematical structuring / — / Hourly rates and zone allowance plan / P12A

Computer Control Co., Inc.
The Datics Corp.
H. S. Gellman & Co., Ltd. — see C30
General Electric Co., Computer Dept.

GENERAL KINETICS INCORPORATED, 555 23rd Street, South, Arlington 2, Va. / Complete services in the fields of digital computer programming and programming research / DESCR: programming services for all general purpose computers; recommendation, design, and construction of automatic programming - automatic checking systems to fit specific needs; mathematical studies; numerical analysis; data-reduction; information retrieval / — / estimates made on request / P12A

The Geotechnical Corp.
H. B. Maynard & Co., Inc.
National Analysts, Inc.
Nuclear Development Corp. of America
Remington Rand Div. of Sperry Rand Corp.
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations
U.S. Air Force, Structures Branch
University of Toronto

P13. PUBLICATIONS

Automatic Control
Automation Consultants, Inc.
Canning, Sisson & Assoc., Inc.
Data Processing Digest
JOHN DIEBOLD & ASSOCIATES, INC., 40 Wall St., New York 5, N.Y. / publications / P13
DocuMation, Inc.
Gille Associates, Inc.

P15. PUBLICATIONS, MAGAZINES

AUTOMATIC OFFICE CONSULTANTS, INC., 9th Floor, 5057 Woodward Ave., Detroit 2, Mich. / "The Automatic Office — A Monthly Management Report" / DESCR: monthly reporting service for management on automatic office operations / USE: reference, inform management of new developments, etc. / Subscr. price: \$24 per year, U.S. and Canada; \$26.50 for other countries / P15

Automation Progress

COMPUTERS AND AUTOMATION, 815 Washington St., Newtonville 60, Mass. / Computers and Automation / DESCR: Monthly magazine, articles, reference information (14 kinds), papers, forum, etc., dealing with automatic computing machinery and its applications and implications / USE: for keeping up to date with the computer field; finding out reference information quickly / U.S. \$5.50 a year; foreign, \$6.50 a year / P15
The Institute of Management Sciences
Instrument Society of America

P16. PUNCH CARD MACHINES

Bull S. A. Compagnie des Machines — see D1
Educational Research Corp.
Elliott Addressing Machine Co.
Elliott Bros. (London) Ltd.
Gordon Enterprises
Huck Co.

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / A complete line of punched card machines includ-

ing the
ment /
account
lators,
Transc
Cardat
Details
Internat
ited
A. Kimb
Logabab
Moore So
National
PDP Div
Recording
Remington
SOROBA
1717,
Perfora
per tap
perfora
acters
U.S. Air
Branch
Wharf E
R1. RE
J. H. BE
Benson-L
Ferranti-I
Intelligen
A. Kimb
Kleinschr
Link Avi
The Stan
Teletype
Wharf E
R2. RE
Avion Di
General
Link Avi
National
R3. RE
American
General
Radio Co
Process
Electro
R4. RE
American
AMPEX
DIV.,
Calif.
DESCR
reproduc
units;
age de
tion sy
tems,
reproduc
design
/ \$275
Avco Mf
Ferranti-I
General
Radio Co
Process
Electro
R5. RE
Telectro
R6. RE
Addo-x,
THE CO

ing the new low-cost Series 50 equipment / DESCR: card punches, sorters, accounting machines, interpreters, collators, verifiers, proof machines, Data Transceivers, the Ticket Converter, the Cardtype Accounting Machine, etc. Details available on request / P16

International Computers & Tabulators Limited

A. Kimball Co.

Logabax S.A.

Moore School of Electrical Engineering

National Data Processing Corporation

PDP Division American Electronics, Inc.

Recording and Statistical Corp.

Remington Rand Div. of Sperry Rand Corp.

SOROBAN ENGINEERING, INC., Box 1717, Melbourne, Fla. / Paper Tape Perforators / DESCR: high-speed paper tape perforators capable of 8 level perforations at speeds up to 240 characters per second / — / \$8750 / P16

U.S. Air Force, Digital Computation Branch

Wharf Engineering Lab

R1. READERS

J. H. Bennell and Co.

Benson-Lehner Corp.

Ferranti-Packard Electric Ltd.

Intelligent Machines Research Corp.

A. Kimball Co.

Kleinschmidt, Inc.

Link Aviation, Inc. — see D1

The Standard Register Co.

Teletype Corp.

Wharf Engineering Lab

R2. READERS, CHARACTER

Avion Division, ACF Industries, Inc.

General Electric Co., Computer Dept.

Link Aviation, Inc. — see D1

National Data Processing Corporation

R3. READERS, MAGNETIC CARD

American Electronics, Inc.

General Electric Co., Computer Dept.

Radio Corp. of America, Electronic Data Processing Division — see D1

Telectro Industries Corp.

R4. READERS, MAGNETIC TAPE

American Electronics, Inc.

AMPEX CORP., INSTRUMENTATION DIV., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic recorder-reproducer for digital data primarily designed for use with computer systems / \$2750 up / R4

Avco Mfg. Corp.

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.

Radio Corp. of America, Electronic Data Processing Division — see D1

Telectro Industries Corp.

R5. READERS, MECHANICAL

Telectro Industries Corp.

R6. READERS, PAPER TAPE

Addo-x, Inc.

California Technical Industries Div. of Textron Inc.

Digital Service Labs

Digitronics Corp.

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.

National Data Processing Corporation

Radio Corp. of America, Electronic Data Processing Division — see D1

SOROBAN ENGINEERING, INC., Box 1717, Melbourne, Fla. / Paper Tape Readers / DESCR: single and dual mechanical sensing paper tape reading devices capable of eight level reading up to speeds of 60 characters per second / Anemometer Reading Head capable of 8 level readings up to speeds of 1000 characters per second / — / \$450 to \$1150 / R6

Tally Register Corp.

Telectro Industries Corp.

R7. READERS, PHOTOELECTRIC

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / photoelectric paper tape reader / / DESCR: 250 char/sec. avg. speed. Uses novel magazine loading principle which provides convenient storage of tapes and rapid loading. Tape can be searched in either direction under program control and input can be accepted during computation. Supplied only as standard equipment on Bendix G-15, together with 20 char/sec. punch and electric typewriter / USE: data and program in-put / not available as separate item / R7

Digitronics Corp.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Hoffman Electronics Corp.

International Rectifier Corp.

National Data Processing Corporation

Radio Corp. of America, Electronic Data Processing Division — see D1

Telectro Industries Corp.

R8. READERS, PUNCH CARD

California Technical Industries Div. of Textron Inc.

Cinch Manufacturing Corp.

Elliott Bros. (London) Ltd.

General Electric Co., Computer Dept.

Gordon Enterprises

International Computers & Tabulators Limited

National Data Processing Corporation

Radio Corp. of America, Electronic Data Processing Division — see D1

R9. RECORDING PAPERS

Alfax Paper and Engineering Co.

Eastman Kodak Co.

Leeds & Northrup Company

Sanborn Company

Sunshine Scientific Instrument Co.

Strandberg Engineering Lab., Inc.

R10. RECTIFIERS

AUDIO DEVICES, INC., 444 Madison Ave., New York 22, N.Y. / rectifiers / R10

AUDIO DEVICES, INC., SILICON RECTIFIER DIV., 620 E. Dyer Rd., Santa Ana, Calif. / Audio Devices Silicon

MANUSCRIPTS

WE ARE interested in articles, papers, reference information, and discussion relating to computers and automation. To be considered for any particular issue, the manuscript should be in our hands by the first of the preceding month.

ARTICLES: We desire to publish articles that are factual, useful, understandable, and interesting to many kinds of people engaged in one part or another of the field of computers and automation. In this audience are many people who have expert knowledge of some part of the field, but who are laymen in other parts of it.

Consequently, a writer should seek to explain his subject, and show its context and significance. He should define unfamiliar terms, or use them in a way that makes their meaning unmistakable. He should identify unfamiliar persons with a few words. He should use examples, details, comparisons, analogies, etc., whenever they may help readers to understand a difficult point. He should give data supporting his argument and evidence for his assertions.

We look particularly for articles that explore ideas in the field of computers and automation, and their applications and implications. An article may certainly be controversial if the subject is discussed reasonably. Ordinarily, the length should be 1000 to 3000 words. A suggestion for an article should be submitted to us before too much work is done.

TECHNICAL PAPERS: Many of the foregoing requirements for articles do not necessarily apply to technical papers. Undefined technical terms, unfamiliar assumptions, mathematics, circuit diagrams, etc., may be entirely appropriate. Topics interesting probably to only a few people are acceptable.

REFERENCE INFORMATION: We desire to print or reprint reference information: lists, rosters, abstracts, bibliographies, etc., of use to computer people. We are interested in making arrangements for systematic publication from time to time of such information, with other people besides our own staff. Anyone who would like to take the responsibility for a type of reference information should write us.

NEWS AND DISCUSSION: We desire to print news, brief discussions, arguments, announcements, letters, etc., anything, in fact, if it is not advertising and is likely to be of substantial interest to computer people.

PAYMENTS: In many cases, we make small token payments for articles, if the author wishes to be paid. The rate is ordinarily 1/2¢ a word, the maximum is \$15, and both depend on length in words, whether printed before, etc.

All suggestions, manuscripts, and inquiries about editorial material should be addressed to: *The Editor, COMPUTERS and AUTOMATION, 815 Washington Street, Newtonville 60, Mass.*

Rectifiers / DESCR: Sealed silicon rectifiers from 50 to 500 volts, 200 milliamps to 200 amps / R10

Bradley Semiconductor Corp.

Fansteel Metallurgical Corp.

Federal Telephone and Radio Co.

Ferranti-Packard Electric Ltd.

General Electric Co., Semiconductor Products Dept.

General Instrument Corp., Semiconductor Div. and Automatic Mfg. Div.

Hoffman Electronics Corp.

International Rectifier Corp.

Kemtron Electron Products, Inc.

P. R. Mallory & Co., Inc.

Motorola, Inc., Semiconductor Products Division

Opad Electric Co.

Pacific Semiconductors, Inc.

Radio Receptor Company

RAYTHEON MFG. CO., SEMICONDUCTOR DIV., 215 First Ave., Needham Hgts. 94, Mass. / rectifiers / DESCR: silicon diffused junction wired-in and 7/16" stud rectifiers / R10

Sylvania Electric Products, Inc., Semiconductor Div.

Texas Instruments, Inc.

Thermosen, Inc.

Transitron Electronic Corp.

United States Dynamics Corp.

U. S. Semiconductor Products, Inc.

Vickers, Inc.

R11. REGISTERS, SHIFT

Aladdin Electronics

AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / shift registers / — / USE: in digital computers or control circuits / R11

Bendix Aviation Corp., Bendix-Pacific Div.

Burlingame Associates, Ltd.

Computer Control Co., Inc.

Deltime, Inc.

Di/An Controls, Inc.

ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Shift Registers / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / R11

Ferranti-Packard Electric Ltd.

General Electric Co., Computer Dept.

General Mills, Inc.

Harvey-Wells Electronics, Inc. — see C31

Hycon Eastern, Inc.

Lewyt Manufacturing Corporation

Ransom Research

Sprague Electric Co.

Valor Instruments, Inc.

R12. RELAYS (COMPUTER TYPES)

Ace Electronics Associates, Inc.

Aemco, Inc.

Allied Control Co., Inc.

Amperite Co., Inc.

Assembly Products, Inc.

AUTOMATIC ELECTRIC COMPANY, Northlake, Ill. / relays (telephone-type) / DESCR: small size, light weight, twin contact springs, resistant to vibration, humidity, and extremes of temperature / USE: Video switching; low-level switching; data processing

and automation systems. Some are available for tin-dipped printed circuit cards, or mounted on regular octal-type or industrial plugs. Wired or unwired / from \$3.00; hermetically sealed at approximately twice as much / R12

Automation Controls Corp.

The Bristol Company

C. P. CLARE & CO., 3101 W. Pratt Blvd., Chicago 45, Ill. / Types HG, HGP, and HGS mercury-wetted contact relays / DESCR: Sealed-in-glass mercury-wetted contact switch surrounded by operating coil and encased in a metal housing mounted on an octal base / USE: Thermocouple switching; magnetic drum switching; transistor-driven uses; microsecond pulse switching card-punch and type-writer-key in computers, data processing, and automation systems; teletype drive; missile ground controls; video switching; computer relay trees; and general computer uses / \$9 to \$26 / R12

Comar Electric Co.

Thomas A. Edison Industries

General Automatic Corp.

Guardian Electric Mfg. Co.

Hillburn Electronic Products Co.

Walter Kidde & Company, Inc.

North Electric Company

Phaostron Instrument and Electronic Co.

Phillips Control Corp.

Potter and Brumfield Mfg. Co., Inc.

Sigma Instruments Inc.

Union Switch & Signal

Wheelock Signals, Inc.

Zuse Kommandit-Gesellschaft

R13. RESISTORS

Aerovox Corp.

Allen-Bradley Co.

Allies' Products Corp.

Arnhold Ceramics, Inc.

Calvert Electronics, Inc.

Centralab

Clarostat Mfg. Co., Inc.

Corning Glass Works

Dale Products, Inc.

The Daven Co.

General Transistor Corp.

Kelvin Electric Co.

P. R. Mallory & Co., Inc.

Ohmite Mfg. Co.

Reon Resistor Corp.

Resistance Products Co.

Sage Electronics Corp.

Sprague Electric Co.

Stackpole Carbon Co.

Sterling Precision Corp.

Texas Instruments, Inc.

Ward Leonard Electric Co.

R14. RESOLVERS

American Electronics, Inc.

Clifton Precision Products Co., Inc.

Control Data Corp.

Diehl Mfg. Co.

Ferranti-Packard Electric Ltd.

Franklin Electronics, Inc.

Ketay Dept. Norden Division United Aircraft Corp.

Mid-Century Instrumatic Corp.

Norden Division of United Aircraft Corp.

John Oster Mfg. Co., Avionic Div.

R15. RESOLVERS, COORDINATE TRANSFORM

Bendix Aviation Corp., Eclipse-Pioneer Div.

Clifton Precision Products Co., Inc.

R16. RESOLVERS, PRODUCT

Clifton Precision Products Co., Inc.

R17. RESOLVERS, SINE COSINE

Clifton Precision Products Co., Inc.

Librascope, Inc.

Librascope, Inc., Commercial Division

R18. ROBOTS

BERKELEY ENTERPRISES, INC., 815

Washington St., Newtonville 60, Mass. / Small Robots / DESCR: small robots such as Simon, a miniature mechanical brain; Squee, an electronic robot squirrel; Relay Moe, Tit-Tat-Toe game-playing machine; Nim machine; Brainiac, Geniac, Tyniac, electric brain construction kits, etc. / USE: in shows, lecturing, teaching, exhibits, displays explaining / \$10 to \$4000, or rental R18

S1. SCANNERS

Applied Science Corp. of Princeton Assembly Products, Inc.

Datex Corp.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Gilmore Industries, Inc.

Instrument Development Laboratories, Inc.

Leeds & Northrup Company

National Data Processing Corporation

Owen Laboratories, Inc.

Strandberg Engineering Lab., Inc.

The Whitnall Manufacturing Co.

S2. SEMICONDUCTORS

Allgemeine Elektricitäts-Gesellschaft

Amperex Electronic Co.

Baird-Atomic Co.

CBS-Hytron

Flight Research, Inc.

General Instrument Corp., Semiconductor Div. and Automatic Mfg. Div.

General Transistor Corp.

Hughes Aircraft Company, Semiconductor Div.

International Rectifier Corp.

Kemtron Electron Products, Inc.

Philco Corp., Lansdale Tube Co. Div.

Radio Corp. of America, Semiconductor and Materials Division

Sperry Semiconductor Division of Sperry Rand Corp.

Texas Instruments, Inc.

Thermosen, Inc.

Tung-Sol Electric, Inc.

Vickers, Inc.

Westinghouse Electric Corporation, Semiconductor Department

S3. SIMULATORS

Aero Electronics Co.

Aircraft Armaments, Inc.

Applied Science Corp. of Princeton

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbutus

Vitae St., Los Angeles 45, Calif. / axis flight system simulator / DESCR

TE
-Pioneer
nc.
Inc.
NE
Inc.
Division
NC., 815
60, Mass
small re
ature me
electronic
it-Tat-Toe
machine
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displays
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Co. Div.
emiconduct
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ration, Sem

a large high precession analog computer combined with a massive servo-operated 3-axis table / USE: simulation of aircraft and missile guidance and control systems, radar, etc. / price depends on requirements / S3
Bendix Aviation Corp., Research Laboratories Div.
Dian Laboratories, Inc.
Erco Plant — Nuclear Products
Feedback Controls, Inc.
Ferranti-Packard Electric Ltd.
Hillyer Instrument Co.
Lewyt Manufacturing Corporation
LINK AVIATION, INC., Binghamton, N.Y. / Simulators / Single function, complex equation and complete system simulators especially designed. Variety includes power plant analyzers, radar simulators and comparators, missile trajectory simulators, land-mass and navigation simulators as well as a complete missile, airframe and electronic systems simulation / S3
Minneapolis-Honeywell Regulator Co., Industrial Division
National Physical Laboratory, Control Mechanisms and Electronics Division
The Newton Co.
Rese Engineering, Inc.
Sterling Precision Corp.
Telectro Industries Corp.
Westgate Laboratory, Inc.

S4. STORAGE SYSTEMS

AMPEX CORP., Instrumentation Div., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic tape recorder/reproducer for digital data primarily designed for use with computer systems / \$2750 up / S4
Andersen Laboratories, Inc.
Canadian Westinghouse Co. Ltd.
Computer Control Co., Inc.
Ferranti-Packard Electric Ltd.
General Mills, Inc.
Hycon Eastern, Inc.
Radio Corp. of America, Electronic Data Processing Division — see D1
Rese Engineering, Inc.
Smith-Corona Marchant, Inc.
Société d'Electronique et d'Automatisme Sturup, Inc.
Sutherland Co. — see C30
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations
Telectro Industries Corp.
The Whitnion Manufacturing Co. — see D11

S5. STORAGE SYSTEMS, MAGNETIC

Aeronutronic Systems, Inc.
AMPEX CORP., INSTRUMENTATION DIV., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control

ENGINEERS

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Communications Engineers	Mechanical Engineers
Digital Computer Programmers	Optical Engineers
Transistorized Circuit Engineers	

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COMPUTER DIVISION

AERONUTRONIC

a subsidiary of Ford Motor Co.

NEWPORT BEACH • GLENDALE • SANTA ANA
MAYWOOD, CALIFORNIA

systems, etc. / USE: magnetic tape recorder-reproducer for digital data primarily designed for use with computer systems / \$2750 up / S5
Burlingame Associates, Ltd.
Computer Control Co., Inc.
Consolidated Controls Corp. — see D12
Di/An Controls, Inc.
Epsco, Inc.
General Electric Co., Computer Dept.
General Mills, Inc.
Hycon Eastern, Inc.
Monroe Calculating Machine Co.
Radio Corp. of America, Electronic Data Processing Division — see D1
Smith-Corona Marchant, Inc.
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations
Telectro Industries Corp.
The Whitnion Manufacturing Co. — see D12

S6. SWITCHES

Aerovox Corp.
Allen-Bradley Co.
Allied Control Co., Inc.
The Bristol Company
Centralab
Clarostat Mfg. Co., Inc.
Comar Electric Co.
Computer Instruments Corp.
CONSOLIDATED CONTROLS CORP., Bethel, Conn. / proximity switch / DESCR: proximity switch which is triggered by small magnet and may therefore be used in ferrous environ-

ments. Repeatability better than 0.001" / USE: limit switch on transfer machines, machine tools, etc. / \$75.00 to \$120.00 / S6
The Daven Co.
General Controls Co.
Genisco, Inc.
Guardian Electric Mfg. Co.
Hughes Aircraft Company, Semiconductor Div.
Instrument Development Laboratories, Inc.
Kellogg Switchboard & Supply Co.
Maurey Instrument Corp.
Micro Switch, a division of Honeywell
North Electric Company
Pacific Magnetic Corp.
Philco Corp., Lansdale Tube Co. Div.
Sangamo Electric Co.
Spectrol Electronics Corp.
Stackpole Carbon Co.
Tally Register Corp.
Wright Engineering Co.

S7. SWITCHES, STEPPING

Airflyte Electronics Co.
AUTOMATIC ELECTRIC COMPANY, Northlake, Ill. / rotary stepping switches / DESCR: Type 44-small-10, 22 or 33-point selection—up to six 10-point bank levels; Type 45—two to twelve 25-point bank levels—capacities—25 points, 12 levels—50 points, 8 levels. Available with solderless terminals, hermetic sealing, and other special features / — / S7
C. P. Clare & Co. — see R12

Eagle Signal Corp.
Electro-Minatures Corp.
Electronap Corp.
The A. W. Haydon Company
Sigma Instruments Inc.

S8. SYNCHROS

American Electronics, Inc.
Bendix Aviation Corp., Eclipse-Pioneer Div.
Clifton Precision Products Co., Inc.
Control Data Corp.
Ford Instrument Co.
Kearfoot Co., Inc.
Kety Dept. Norden Division United Aircraft Corp.
Librascope, Inc., Commercial Division
Minneapolis-Honeywell Regulator Co., Boston Division
Norden Division of United Aircraft Corp.
John Oster Mfg. Co., Avionic Div.

S9. SYSTEMS ENGINEERING

Aircraft Armaments, Inc.
Airpax Electronics Co., Seminole Div.
American Machine & Foundry Co.
Automation Engineers — see C30
Babcock Radio Engineering, Inc.
Booz, Allen and Hamilton
Booz, Allen Applied Research, Inc.
Canadian Westinghouse Co. Ltd.
Computer Control Co., Inc.
Consolidated Avionics Corp.
Dasol Corp.
Data Systems Div., Norden-Ketay Corp.
Daystrom Instrument, Div. of Daystrom, Inc.
Di/An Controls, Inc.

ELECTRONIC BUSINESS SERVICES,

3266 Hunts Point Rd., Bellevue, Wash.
/ Consultation in automation and data processing service / DESCR: consultation services, particularly for operators of small and moderate size businesses having problems in data processing, automation, etc. / USE: services vary to fit needs of clientele / charges vary depending on amount of work involved and results produced / S9

Feedback Controls, Inc.
General Electric Co., Computer Dept.
GPE Controls, Inc.
Information Systems, Inc.
Walter Kidde & Company, Inc.
Leeds & Northrup Company
Lewyt Manufacturing Corporation
Link Aviation, Inc. — see C23, C24, G2, and S3

H. B. Maynard & Co., Inc.
Midwest Research Institute
Minute Maid Corp.
Moore School of Electrical Engineering
Pacific Magnetic Corp.
Panellit, Inc.
The Ralph M. Parsons Co.
Sylvania Electronic Systems, A Div. of Sylvania Electric Products Inc., Data Systems Operations
Technitrol Engineering Company
The Teller Company

THE THOMPSON - RAMO - WOOLDRIDGE PRODUCTS CO., P.O. Box 90067, Airport Sta., Los Angeles 45, Calif. / systems engineering / S9
Vickers, Inc.

T1. TACHOMETERS

Airpax Electronics Co., Seminole Div.
Diehl Mfg. Co.
Electro Products Laboratories, Inc.
Hewlett-Packard Company
Kearfoot Co., Inc.
Sunshine Scientific Instrument Co.
Weston Instruments

T2. TAPE HANDLERS

BURROUGHS CORP., ELECTRODATA DIVISION, 460 Sierra Madre Villa, Pasadena, Calif. / digital magnetic tape transport units / DESCR: 1/2" or 3/4" tape on 10 1/2" reels, 3 or 6 millisecond start-stop, fast rewind, single speeds up to 75 inches per second, multiple speeds / USE: digital computer systems, data processing and telemetering systems, automatic controls / around \$8,000 / T2
California Technical Industries Div. of Textron Inc.

Digital Service Labs
Fairchild Camera & Instrument Corp.
General Electric Co., Computer Dept.
Potter Instrument Company, Inc.
Radio Corp. of America, Electronic Data Processing Division — see D1
J. B. Rea Co., Inc.
The Wright Line, Inc.

T3. TAPE, MAGNETIC

THE ARNOLD ENGINEERING CO., P.O. Box G, Marengo, Ill. / magnetic tape / — see C52
AUDIO DEVICES, INC., 444 Madison Ave., New York 22, N.Y. / Extra precision Audiotape / DESCR: Magnetic recording tape for computers, telemetry, seismography and other specialized applications. Guaranteed 'defect-free' / USE: — / — / T3
Data Instruments Div. of Telecomputing Corp.

General Electric Co., Computer Dept.
Edwin A. Lipps Engineering
Minnesota Mining and Mfg. Co.
REEVES SOUNDCRAFT CORP., 15 Great Pasture Rd., Danbury, Conn. / magnetic tape / DESCR: magnetic recording tape / USE: for all instrumentation and industrial applications / — / T3
Société d'Electronique et d'Automatisme

T3A. TAPE, MAGNETIC FILING SYSTEMS

Southwestern Industrial Electronics Co.

T4. TAPE, MAGNETIC READERS

Addo-x, Inc.
AMPEX CORP., INSTRUMENTATION DIV., 934 Charter St., Redwood City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic recorder-reproducer for digital data primarily designed for use with computer systems / \$2750 up / T4
Edwin A. Lipps Engineering

National Data Processing Corporation
Radio Corp. of America, Electronic Data Processing Division — see D1
Société d'Electronique et d'Automatisme
Telectro Industries Corp.

T5. TAPE, MAGNETIC RECORDERS

AMPEX CORP., INSTRUMENTATION DIV., 934 Charter City, Calif. / FR-300, FR-400, FR-200A / DESCR: magnetic tape recorders and reproducers for programming; memory units; computer input, output and storage devices for automatic data-reduction systems, machine-tool control systems, etc. / USE: magnetic recorder-reproducer for digital data primarily designed for use with computer systems / \$2750 up / T5

AUTONETICS, a Div. of North American Aviation, Inc., 9150 E. Imperial Hwy., Downey, Calif. / magnetic tape recorders / T5
Avco Mfg. Corp.

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / MTA-2 tape storage unit / DESCR: accessory to Bendix G-15 general purpose digital computer. Up to four units may be used. Each stores 300,000 words. May be searched for blocks or file sections. See also C24 / USE: auxiliary storage of data and programs / \$6800, sale, \$270 mo., lease / T5

Epsco, Inc.
Gulton Industries, Inc.
Edwin A. Lipps Engineering
Miles Reproductor Co., Inc.
Minneapolis-Honeywell Reg. Co., Davies Laboratories Division
National Data Processing Corporation
Radio Corp. of America, Electronic Data Processing Division — see D1
RADIO CORP. OF AMERICA, PRECISION ELECTRONIC INSTRUMENTS DIVISION, Building 15-1, Camden, N.J. / magnetic tape recorders / T5
Telectro Industries Corp.

T5A. TAPE, MAGNETIC REELS

American Molded Products Co.

T6. TAPE, PAPER

Digital Service Labs

T7. TAPE, PAPER FILING SYSTEMS

T8. TAPE, PAPER PUNCHES

Addo-x, Inc.
California Technical Industries Div. of Textron Inc.
Digital Service Labs
Fairchild Graphic Equipment
Ferranti-Packard Electric Ltd.
Fischer & Porter Co.
General Electric Co., Computer Dept.
Kleinschmidt, Inc.
Monroe Calculating Machine Co.
Radio Corp. of America, Electronic Data Processing Division — see D1
Société d'Electronique et d'Automatisme
Tally Register Corp.

T9. TAPE, PAPER READERS

Addo-x, Inc.

BENDIX AVIATION CORP., BENDIX COMPUTER DIVISION, 5630 Arbor Vitae St., Los Angeles 45, Calif. / PR-2 multi-code paper tape reader / DESCR: Reads any numeric code punched in 5, 6, 7, or 8 channel tape at 400 characters per second. Accepts tapes from cash registers, adding machines, accounting machines, A-D converters, etc. Matrix easily rewired or replaced to change external code to be read. Stops on one character. Special reel-less winding and unwinding devices included / USE: G-15 computer input from and data source that punches numeric tape / sale, \$4,350; lease, \$130 per month / T9

California Technical Industries Div. of Textron Inc.

Digital Service Labs

Digitronics Corp.

Elliott Bros. (London) Ltd.

FERRANTI ELECTRIC, INC., 95 Madison Ave., Hempstead, N.Y. / Photoelectric Paper Tape Readers / DESCR: TR2B, TR3B, TR5, TR7, 196 and specials read punched paper tape photoelectrically and give stop on character performance at all speeds up to 1000 characters per second with various models. Friction drive minimizes tape wear. TR5, TR7 and 196 fully transistorized and self-contained units including power supplies, amplifiers and control circuits / USE: computer input, digital data transmission, control / \$1820 to \$9500 / T9

General Electric Co., Computer Dept.

Kleinschmidt, Inc.

Miles Reproducer Co., Inc.

Radio Corp. of America, Electronic Data Processing Division — see D1

Tally Register Corp.

T10. TELEMETERING SYSTEMS

Aeronca Mfg. Corp.

Aircraft Armaments, Inc.

Airpax Electronics Co., Seminole Div.

AUDIO DEVICES, INC., 444 Madison Ave., New York 22, N.Y. / telemetering systems / T10

Automation Research and Design Associates

Bendix Aviation Corp., Bendix-Pacific Div.

Canadian Westinghouse Co. Ltd.

Coleman Engineering Co.

Daystrom Instrument, Div. of Daystrom, Inc.

ELECTRO-MECHANICAL RESEARCH, INC., P.O. Box 3041, Sarasota, Fla. / Telemetry transmitting and acquisition equipment / DESCR: FM/FM, PDM, PAM, PCM airborne packages and ground station acquisition, data reduction systems / USE: aircraft and missile telemetry / — / T10

Electronics Development Co., Inc.

Fischer & Porter Co.

The Foxboro Co.

General Electric Co., Computer Dept.

The Geotechnical Corp.

Gulton Industries, Inc.

Hallamore Electronics Co.

Hammarlund Mfg. Co., Inc.

Hoover Electronics Company

Instrument Development Laboratories, Inc.

International Telemeter Corp.

Jefferson Electronic Products Corp.

Leeds & Northrup Company

Litton Industries, Inc.

Minneapolis-Honeywell Regulator Co., Industrial Division

National Data Processing Corporation

Orradio Industries

The Ralph M. Parsons Co.

Radiation, Inc.

Shand & Jurs Co.

Sperry Rand Corp., Sperry Gyroscope Div.

Telectro Industries Corp.

Tele-Dynamics Inc.

T11. TERMINALS

Accurate Electronics Corp.

American Lava Corp.

AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / terminals / DESCR: solderless terminals / — / T11

Burdry Corporation, Omaton Div.

Cambridge Thermionic Corporation

Cinch Manufacturing Corp.

General Ceramics Corporation

Litton Industries, Components Div.

Winchester Electronics, Inc.

T11A. TRANSDUCERS

Airpax Electronics Co., Seminole Div.

B J Electronics, Borg-Warner Corp.

The Bristol Company

Computerr Instruments Corp.

Electro Products Laboratories, Inc.

Fairchild Controls Corp., Components Div.

General Cybernetics Corp.

General Electric Co., Computer Dept.

Hathaway Instrument Co.

Industrial Nucleonics Corporation

International Resistance Company

Sanborn Company

Servomechanisms, Inc.

Technology Instrument Corp.

Wiancko Engineering Co.

T12. TRANSFORMERS

Airpax Electronics Co., Seminole Div.

AMP INCORPORATED, Eisenhower Blvd., Harrisburg, Pa. / transformers / DESCR: pulse transformers / USE: radar, computers, pulse applications / T12

BALLASTRAN CORPORATION, 1701 North Calhoun St., Fort Wayne 7, Indiana / specialty transformers / DESCR: design, development and manufacture of power, audio, pulse and saturable core transformers / T12

Beckman Instruments Inc., Systems Div.

Bradley Semiconductor Corp.

Ferranti-Packard Electric Ltd.

Gulton Industries, Inc.

Jefferson Electric Co.

Mico Instrument Co.

Microtran Company, Inc.

Pacific Magnetic Corp.

PCA Electronics Inc.

Polyphase Instrument Co.

Sola Electric Co.

Specialties, Inc.

Superex Electronics Corp.

Vernistat Division of the Perkin-Elmer Corp.

Wheeler Electronic Corp.

THE COMPUTER DIRECTORY AND BUYERS' GUIDE 1959

5th Annual Issue,

the only directory in the computer field,

the June 1959 issue of Computers and Automation

CONTENTS:

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(740 organization entries)

Part 2, BUYERS' GUIDE: ROSTER OF PRODUCTS AND SERVICES. Each expanded bold-face entry gives:

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Name.....

Title.....

Organization.....

Address.....

T13. TRANSFORMERS, PULSE

Airpax Electronics Co., Seminole Div.
Aladdin Electronics
Ballastan Corporation — see T12
Beckman Instruments Inc., Systems Div.
Coilcraft, Inc.
Dilectron Div. of the Gudeman Co.
Electronic Transformer Co., Inc.
El-Rad Mfg. Co.
Epsco Components
ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Medium and Low-Power Transformers / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / T13
ESC CORP., 534 Bergen Blvd., Palisades Park, N.J. / Pulse Transformers / DESCR: used in computers, telemetering, missile guidance, missile inertia, missile propulsion and missile telemetering / USE: radar, fire control, etc. / — / T13
Ferroxcube Corp. of America
PCA Electronics Inc.
Polyphase Instrument Co.
Sangamo Electric Co.
Sprague Electric Co.
Technitrol Engineering Company
Wheeler Electronic Corp.

T14. TRANSISTORS

Amperex Electronic Co.
Baird-Atomic Co.
Calvert Electronics, Inc.
General Electric Co., Semiconductor Products Dept.
Industro Transistor Corp.
Pacific Semiconductors, Inc.
Philco Corp., Lansdale Tube Co. Div.
RAYTHEON MFG. CO., SEMICONDUCTOR DIVISION, 215 First Ave., Needham Heights 94, Mass. / transistors / DESCR: both PNP and NPN silicon transistors, PNP germanium transistors for switching, computer, AF, RF and general purpose use. Many types available in submini size / USE: computers and related uses / — / T14
Sylvania Electric Products, Inc. (New York)
Sylvania Electric Products, Inc., Semiconductor Div.
Transistor Products, Inc.
Transitron Electronic Corp.
United States Dynamics Corp.
Westinghouse Electric Corp., Semiconductor Dept.

T15. TRANSISTORS, GERMANIUM

Amperex Electronic Co.
Clevite Transistor Products
Delco Radio Div.
General Transistor Corp.
Hughes Aircraft Company, Semiconductor Div.

Industro Transistor Corp.
Motorola, Inc., Semiconductor Products Division
Philco Corp., Lansdale Tube Co. Div.
Raytheon Mfg. Co., Semiconductor Division — see T14
Texas Instruments, Inc.
Tung-Sol Electric, Inc.
Westinghouse Electric Corp., Semiconductor Dept.

T16. TRANSISTORS, SILICON

Amperex Electronic Co.
General Transistor Corp.
Hughes Aircraft Company, Semiconductor Div.
Philco Corp., Lansdale Tube Co. Div.
Raytheon Mfg. Co., Semiconductor Division — see T14
Sperry Semiconductor Division of Sperry Rand Corp.
Texas Instruments, Inc.
Westinghouse Electric Corp., Semiconductor Dept.

T17. TRANSLATING EQUIPMENT

Automation Engineers — see D1
Bendix Aviation Corp., Bendix-Pacific Div.
Benson-Lehner Corp.
CGS Laboratories, Inc.
Consolidated Avionics Corp.
Cubic Corporation
Di/An Controls, Inc.
Electronic Engineering Co. of Calif.
Epsco, Inc.
General Electric Co., Computer Dept.
Lewyt Manufacturing Corporation
F. L. Moseley Co.
National Data Processing Corporation
Ransom Research
The Teller Company

T18. TYPEWRITERS, ELECTRIC, CONTROLLED

Automation Engineers — see D1
Digital Service Labs
FRIDEN, INC., San Leandro, Calif. / Flexowriter / DESCR: automatic writing machine; operates automatically from punched tape, edge-cards, or tab cards; produces by-product tape or cards; standard electric keyboard for manual input; code selector, code translator, tape punch and tape reader (tab card reader optional); will punch, read, duplicate, correct paper tape; 5, 6, 7, 8 channels optional / USE: to prepare documents at the source, to cause automatic punching of tab cards through direct connection with card punch or by tape-to-card conversion; to produce as a by-product punched tapes with complete or select information; tapes in turn are used to actuate other tape-operated machines

such as communications equipment, address plate embossing machines, tape-to-card punches, computers, etc.; to read and cause automatic document preparation directly from tab cards / T18

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM Typewriter Card Punch (Types 824 and 826) / DESCR: Both the 824 and 826 prepare punched cards for accounting use as an automatic by-product of typewriting operations. Each machine consists of two units, an IBM electric typewriter and a printing (826) or non-printing (824) card punch / Monthly rental ranges from \$95 to \$145. Selling price ranges from \$3,700 to \$7,400. All prices exclusive of tax / T18

INTERNATIONAL BUSINESS MACHINES CORPORATION, DATA PROCESSING DIVISION, 112 East Post Rd., White Plains, N.Y. / IBM 884 Typewriter Tape Punch / DESCR: The 884 creates a perforated tape simultaneously with the typing operation / USE: Perforated tapes created by the 884 control the IBM Tape-to-Card Punch for automatic conversion to punched cards / Monthly rental, \$75. Selling price, \$3,750. All prices exclusive of tax / T18

Olivetti Corp. of America

Remington Rand Div. of Sperry Rand Corp.
SOROBAN ENGINEERING, INC., Box 1717, Melbourne, Fla. / Automatic Tabulators / DESCR: specialized coding and de-coding devices / USE: in control of electronic tabulators and similar printing devices / \$1600 to \$4900 / T18

UNDERWOOD CORPORATION, One Park Ave., New York 16, N.Y. / Data-Flo systems / DESCR: Tapemaster — electric typewriter with paper tape punch and reader, programmed by paper tape, with optional extra tape reader or slave electric typewriter. 88 programmer—plugboard program control for Data-Flo systems where tape programming is inadequate. 275 and 550 programmers — comprehensive plugboard program control for Data-Flo systems with ability to compare, store, add, subtract, conditional and unconditional program transfer, and to perform iterative subroutines, with both input and output for paper tape and/or punch cards. See also B3 / USE: automatic letter writing, automatic selective punching of paper tape or punch cards as by-product of original typing, automatic data processing by paper tape or punch card input, tape to card or card to tape conversion as by-product of automatic typing, etc. / \$1,850 to \$12,000; \$74 to \$480, monthly rental / T18
Vari-Typer Corporation

T19. TUBES, ELECTRONIC

Amperex Electronic Co.
Amperite Co., Inc.

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Burroughs Corp., Electronic Tube Div.
CBS-Hytron
Ferranti-Packard Electric Ltd.
General Electric Co., Receiving Tube
Dept., (Ky., Ill., N.J., and Calif.)
National Union Electric Corp.
Philco Corp., Lansdale Tube Co. Div.
RAYTHEON MFG. CO., INDUSTRIAL
TUBE DIV., 55 Chapel St., Newton
58, Mass. / electron tubes / DESCR:
reliable miniature and subminiature
tubes, low drain filamentary submini-
ature tubes, special cathode ray tubes /
USE: computer and related uses / — /
T19
Sylvania Electric Products, Inc. (New
York)
Thermosen, Inc.
Tung-Sol Electric, Inc.
Wiltec Electronics, Inc.

VI. VISUAL OUTPUT DEVICES
Automation Engineers — see D1
Avion Division, ACF Industries, Inc.
Baird-Atomic Co.
Benson-Lehner Corp.
Burroughs Corp., Electronic Tube Div.
Consolidated Avionics Corp.
Di/An Controls, Inc.
Ferranti-Packard Electric Ltd.
The Geotechnical Corp.
The A. W. Haydon Company
Industrial Development Engineering Assoc.,
Inc.
Instrument Development Laboratories, Inc.
INTERNATIONAL BUSINESS MACH-
INES CORPORATION, DATA PRO-
CESSING DIVISION, 112 East Post
Rd., White Plains, N.Y. / The IBM
740 Cathode Ray Tube Recorder /
DESCR: An electronic output device
designed for use with the IBM 701,
704, and 709. It provides an output
which records data points on the faces
of a pair of television-like tubes at the
rate of 8,000 per second. The larger
tube (780 CRT Display Unit) is used
for visual display; the smaller tube
(740 CRT Recorder) is used in con-
junction with a camera under the con-
trol of the 701, 704, or 709. The cam-
era automatically photographs informa-
tion as directed by the computer pro-
gram / USE: for scientific, engineer-
ing, and design problems / Monthly
rental, \$2,850. Selling price, \$112,000.
All prices exclusive of tax / V1
Laboratory for Electronics, Inc.
Microscope, Inc.
Link Aviation, Inc. — see D1

HILCO CORP., GOVERNMENT &
INDUSTRIAL DIV., 4700 Wissahic-
kon Ave., Philadelphia 44, Pa. / visual
output devices / V1
Sterling Precision Corp.
Strandberg Engineering Lab., Inc.
Strandberg-Carlson (West Coast)
Technitrol Engineering Company
Trio Laboratories, Inc.
Union Switch & Signal
Wiltec Electronics, Inc.

ON, One
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June, 1959

Tape specs are getting tougher every year



* *higher recording densities*
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* *more tracks*
(16 channels per inch)

* *greater accuracy*
(1 error per 40 million)

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EP Audiotape quality is so well verified by instruments like the Automatic Certifier that every reel is guaranteed to be defect-free! For more information write for free Bulletin T112A. Write Dept. TA, Audio Devices, Inc., 444 Madison Avenue, New York 22, N. Y.

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This kit is an up-to-the-minute introduction to the design of arithmetical, logical, reasoning, computing, puzzle-solving, and game-playing circuits—for boys, students, schools, colleges, designers. It is simple enough for intelligent boys to assemble, and yet it is instructive even to engineers, because it shows how many kinds of computing and reasoning circuits can be made from simple components. This kit is the outcome of 8 years of design and development work with Geniacs and small robots by Berkeley Enterprises, Inc. With this kit and manual you can easily make over 150 small electric brain machines that display intelligent behavior and teach understanding first-hand. Each one runs on one flashlight battery; connections with nuts and bolts; no soldering required. (Returnable for full refund if not satisfactory.) . . . Price \$17.95.

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The Rule About Semicolons and Commas
The Farnsworth Car Pool

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Black Match
Nim
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Frank McChesney's Wheeled Bandit

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Four by Four Magic Square
Character of Roots of a Quadratic
Ten Basic Formulas of Integration

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The Daisy Petal Machine
Calvin's Eenie Meenie Minie Moe Machine
The Cider Pouring Problem
The Mysterious Multiples of 76923, of 369, etc.
Bruce Campbell's Will
The Fox, Hen, Corn, and Hired Man
The Uranium Shipment and the Space Pirates
General Alarm at the Fortress of Dreadeerie

The Two Suspicious Husbands at Great North Bay
The Submarine Rescue Chamber Squalux
The Three Monkeys Who Spurned Evil
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Timothy's Mink Traps
Josephine's Man Trap
Douglas Macdonald's Will
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My name and address are attached.

WHO'S WHO IN THE COMPUTER FIELD

From time to time we bring up to date our "Who's Who in the Computer Field." We are currently asking all computer people to fill in the following Who's Who Entry Form, and send it to us for their free listing in the Who's Who that we publish from time to time in **Computers and Automation**. We are often asked questions about computer people—and if we have up to date information in our file, we can answer those questions.

If you are interested in the computer field, please fill in and send us the following Who's Who Entry Form (to avoid tearing the magazine, the form may be copied on any piece of paper).

Name? (please print)
Your Address?
Your Organization?
City Address?
Your Title?
Your Main Computer Interests?

- () Applications
- () Business
- () Construction
- () Design
- () Electronics
- () Logic
- () Mathematics
- () Programming
- () Sales
- () Other (specify):

Year of birth?
College or last school?
Year entered the computer field?
Occupation?
Anything else? (publications, distinctions, etc.)

When you have filled in this entry form please send it to: **Who's Who Editor, Computers and Automation**, 115 Washington Street, Newtonville 40, Mass.

WHO'S WHO IN THE COMPUTER FIELD (Supplement)

A full entry in the "Who's Who in the Computer Field" consists of: name / title, organization, address / interests (the capital letters of the abbreviations are the initial letters of Applications, Business, Construction, Design, Electronics, Logic, Mathematics, Programming, Sales) / year of birth, college or last school (background), year of entering the computer field, occupation / other information such as distinctions, publications, etc. An absence of information is indicated by - (hyphen). Other abbreviations are used which may be easily guessed like those in the telephone book.

Every now and then a group of completed Who's Who entry forms come in to us together from a single organization. This is a considerable help to a compiler, and we thank the people who are kind enough to arrange this. In such cases, the organization and the address are represented by . . . (three dots).

Auerbach Electronics Corporation, 109 North Essex Avenue, Narberth, Pa.
Anstey, Charles E / Tech Staff, . . . / CDE, Systems Planning, Eqpm Design and Evaluation / '29, LaSalle, '54, Systems Equip Engr

Auerbach, Isaac L / Pres, . . . / ABC-DELS, Syst Engrg, Design and Evaluation / '21, Drexel IT, Harvard, '47, Exec / Fellow IRE, Chairman US Comm for 1st Internatl Conf on Info Proc, Consultant for UNESCO, numerous patents and papers on comprs, magnetic and transistor circuitry and systems

Cohen, Ernest B / Tech Staff, . . . / DEMP, Systems Planning / '32, Cornell, '55, Systems Engr

Dickson, Robert B / Tech Staff, . . . / AMLP, Systems Planning, Design and Evaluation / '19, Haverford Coll, Univ of Pa, '51, mathn, systems engr

Harris, John D / Tech Staff, . . . / CDLP / '27, MIT, '51, Systems & Logical Designer

Kurtzberg, Jerome / Tech Staff, . . . / AMPL / '31, Temple Univ, '54, prmgr

Miller, A. Eugene / Tech Staff, . . . / ABDLMPS, Systems Synthesis, Op Res, Design and Evaluation / '29, Univ of Pa, '51, Systems Engr

Norwood, Richard T / Tech Staff, . . . / CD / '18, Johns Hopkins Univ, '39, Product Design Engr

Shafritz, Arnold B / Chief Systems Engr, . . . / ABLMP, Systems Synthesis, De-

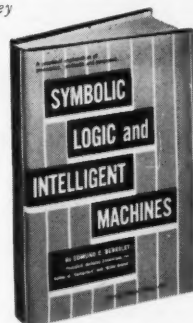
A practical explanation of principles, methods and purposes . . .

SYMBOLIC LOGIC AND INTELLIGENT MACHINES

By EDMUND C. BERKELEY

Editor, "Computers and Automation"
President, Berkeley Enterprises, Inc.

Author of
"Computers:
Their Operation
and
Applications,"
Reinhold, 1956,
"Giant Brains"
or "Machines
that Think,"
Wiley, 1949



1959
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\$6.50

The principles, methods, and purposes of symbolic logic and Boolean algebra, and their use in the design, construction, and programming of intelligent machines, are explained in a simple and straightforward way in "Symbolic Logic and Intelligent Machines." The book proceeds from answers to simple, basic questions, towards the ideas and terms needed to understand the whole subject. The discussion of both symbolic logic and intelligent machines abounds in comparisons and examples. The design and principles of both small and large computing machines are included, along with specific problems that confront the designers of these machines. The role of symbolic logic in the programming of automatic computers and such complex devices as robots completes this outstanding book.

CONTENTS: *Symbolic Logic—An Introduction; The Basic Ideas. Boolean Algebra—Introduction; Basic Ideas; Calculating; Mathematical Definition. Intelligent Machines. Small Machines That Reason—Some Simple Problems; A Syllogism Machine and Other Problems. Large Machines That Compute—The Problem of Adding Decimal Digits; The Problems of Storage, Transfer and Organization; Addition, Subtraction, Multiplication, and Division of Binary Numbers. The Algebra of States and Events—The Basic Ideas; Application to Some Problems. Symbolic Logic and The Programming of Automatic Computers. Selected Bibliography. Index.*

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sign and Evaluation / '26, Univ of Pa, '49, Systems Engr
 Smith, Harvey A / Tech Staff, . . . / AMPL, Systems Analysis / '32, Lehigh Univ, Univ of Pa, '52, Mathn-Physicist
 Weikel, Franklin H / Tech Staff, . . . / S, Writer / '30, —, '55, Tech Writer

Winsor, Paul, III / Assoc Dir, Engrg, . . . / ABCDELS, Systems Synthesis, Design and Evaluation / '25, MIT, '49, Systems Engr
 Wolff, Fred G / Tech Staff, . . . / ACDE, Systems Planning, Design and Evaluation / '23, Germany, '51, Systems Equip

Designer / numerous patent applications on compr equip and printers
 Wylen, Joseph / Mgr, Equip Dev. . . / ACDELS, Systems Planning, Design and Evaluation / '24, Univ of Pa, MIT, '49, Systems Equip Designer / numerous patents and papers

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Following is the index of advertisements. Each item contains: Name and address of the advertiser / page number where the advertisement appears / name of agency if any.

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Ampex Corp., 934 Charter St., Redwood City, Calif. / Page 17 / McCann Erickson, Inc.

The Arnold Engineering Co., Marengo, Ill. / Page 53 / Erwin Wasey, Ruthrauff & Ryan, Inc., Walker Div.

Autonetics, a Div. of No. American Aviation, Inc., 9150 E. Imperial Highway, Downey, Calif. / Page 2 / Batten, Barton, Durstine & Osborn.

Audio Devices, Inc., 444 Madison Ave., New York 22, N.Y. / Page 93 / Marsteller, Rickard, Gebhardt & Reed, Inc.

Bendix Aviation Corp., Computer Div., 5630 Arbor Vitae St., Los Angeles, Calif. / Page 27 / Shaw Advertising Inc.

Bendix Aviation Corp., Research Laboratories Div., P.O. Box 5115, Detroit 35, Mich. / Page 73 / MacManus, John & Adams, Inc.

Berkeley Enterprises, Inc., 815 Washington St., Newtonville 60, Mass. / Pages 79, 94 / —

Boeing Airplane Co., Seattle 24, Wash. / Page 41 / Calkins & Holden.

Broadview Research Corp., 1811 Trousdale Dr., Burlingame, Calif. / Page 43 / —

CEIR, 1200 Jefferson Davis Highway, Arlington 2, Va. / Page 31 / Ernest S. Johnston

Computers and Automation, 815 Washington St., Newtonville 60, Mass. / Pages 85, 91, 99 / —

Dialight Corp., 60 Stewart Ave., Brooklyn 37, N.Y. / Page 29 / H. J. Gold Co.

DI/AN Controls, Inc., 40 Leon St., Boston 15, Mass. / Page 75 / Theodore C. Gams & Assoc.

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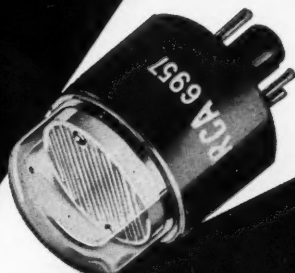
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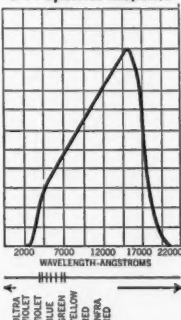
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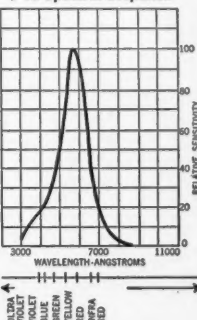
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			Voltage Between Terminals volts	Power Dissipation mw	Ambient Temperature Range °C	Voltage Between Terminals volts	Radiant μA/μW	Sensitivity Luminous mA/lumen	Illumination μA/ftc	Max. Dark Current μA
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